DAVID C. SHEPARD

VS.

NORTHERN PACIFIC RAILWAY COMPANY, ET AL.

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UNITED STATES CIRCUIT COURT,

DISTRICT OF MINNESOTA,

THIRD DIVISION.

(In Equity.)

DAVID C. SHEPARD,

Complainant,

vs.

NORTHERN PACIFIC RAILWAY COMPANY, GEORGE T. SIMPSON, IRA B. MILLS, CHARLES F. STAPLES, CHARLES E. ELMQUIST, E. A. EVARTS, O. J. WHITEMAN, J. RUMSEY REEVE, ACHILLE MICHAUD, CHARLES MICHAUD AND ADOLPH MICHAUD,

Defendants.

APPEARANCES:

HOW, BUTLER & MITCHELL,
Solicitors for Complainant.

EDWARD T. YOUNG, Attorney General,
THOMAS D. O'BRIEN and EDMUND S. DURMENT,
Solicitors for members of the Railroad and Warehouse Commission, et al.

VOLUME 6.

CHAS. E. OTIS, Master.

GEO. N. HILLMAN, Reporter.

AFTERNOON SESSION.

THOMAS COOPER,

recalled on behalf of Complainant, testified:

By Mr. How:

Q. Mr. Cooper, do you desire to correct any testimony which you have heretofore given in this case, or to make any corrections in an exhibit or exhibits introduced through you?

A. I do. Exhibit 9, which is the exhibit showing my valuation of all of the right-of-way and other operating property of the Company,—we find that in compiling that exhibit we made a mistake of $61,000-odd in the state of Minnesota. That mistake occurred by our having taken the figures that were compiled in our report to the State, and in that report the State found some mistakes and called our attention to them and we overlooked making the proper allowance for those mistakes when this Ex. 9 was prepared. Therefore, Ex. 9 shows $61,000 valuation in the state of Minnesota more than it should, and I have prepared a new exhibit in which that correction is made.

Q. That same error was carried into Ex. No. 12, which is the detailed statement for Minnesota by districts?

A. Yes, that same mistake is carried into Ex. 12.

Q. What district does it occur in, do you remember?

A. No; I have the detail here which shows. In Section No. 2, West Duluth to White Bear, we made a mistake in the computation of the area, the correction of which mistake resulted in a reduction in the market value of $7,181.50, and in the railway-purpose value of $21,544.50. In Section 3 another mistake was made in the computation of the area.

Q. What is the name of that section?

A. In Section 3 Fond du Lac branch, a mistake was made in the computation of the area, the correction of which results in a reduction in the market value of $736.50, and in the railway-purpose value of $2,209.50; in Section 9, White Bear to

Stillwater, a mistake was made in multiplying the area by the price per acre.

Q. White Bear to Stillwater, in Ex. 12 there is no such name as that.

A. The Stillwater branch. The correction of which mistake results in an increase in this case in the market value of $1,932.50, and in the railway-purpose value of $5,797.50. In Section 11, White Bear to St. Paul, we included an item within the corporate limits of St. Paul; and in Section 12, Twin Cities, we there included the same district. We have now eliminated it from Section 11, that reducing the market value $14,530, and the railway-purpose value $43,590. The correction of those various mistakes aggregates a reduction in market value of $20,515.50, and in railway-purpose value of $61,546.50, and the new exhibits are made to show the correct figures.

Mr. How: I suggest that these new exhibits be marked, respectively, "Complainant's Ex. 9—Cooper Revised," and "Complainant's Ex. 12—Cooper Revised."

They were so marked.

Mr. How: Each of those exhibits is offered in evidence.

Q. I show you statement which has been marked "Complainant's Ex. 70—Cooper." Will you explain that exhibit and state what it purports to show and explain in full the notes appended to it?

A. I prepared Ex. 70 in order to show concisely the difference in values of the Company's report and the State engineer's report and my testimony in this case. Also in compiling the exhibit it will be noted that I divided it into five items, Duluth, St. Paul, Minneapolis, Other Cities, Towns and Villages, and the Country. I had in mind that this would be convenient for all of us in considering the difference in the various items, their relative importance. The note at the bottom is to explain, in case anyone ever chose to compare this

exhibit with the State's report and the Company's report; that note would then be necessary in order to check the various sections; that is to say, the Company in getting up its report did not include all of the property in Duluth in the Duluth section. The State engineer did, and therefore, in order to make the comparison proper, I included in the item of "Duluth" in the exhibit, everything within the corporate limits, the same as the State engineer did, and that note explains just exactly what was done in each case in the way of transferring.

Q. This exhibit shows that the amount of excess in your estimate of the value of the real estate of the Northern Pacific Company in the state of Minnesota consists, in the aggregate, of $9,915,758.44, your estimate having been higher than that of Mr. Morgan; of which approximately seven million is somewhere about equally divided between St. Paul and Minneapolis?

A. That is correct.

Q. Approximately one million of that excess of valuation is in Duluth?

A. That is correct.

Q. Approximately one million in other cities, towns and villages outside of Duluth, St. Paul and Minneapolis, and $677,000, about, in the country outside of the limits of cities, towns and villages?

A. That is correct.

Mr. How: That is offered.

Q. Are you acquainted with the testimony of Mr. Morgan in this case?

A. I heard a great deal of the testimony; read part of it that I didn't hear; I think perhaps that I have either read or heard all that related to the particular subject that I have been dealing with in this case.

Q. Do you recollect his testimony as to the method of de-

termining the present cost of acquisition of the real estate of the Northern Pacific Company in St. Paul, Minneapolis and Duluth?

A. Yes, sir.

Q. As I remember it he pursued what he denominated the assessment method, as checked up to some extent by the sales method, and applied a percentage of excess over the assessment value as carried upon the assessment rolls of the respective counties in which the respective cities are situate, for the purpose of determining what he denominates the true value.

A. Yes, that is about the idea; I don't know that you have conveyed it half as good as I could have done myself, but that sounds like it.

Q. Well, if my statement is intelligible to you and you think it is correct, we will let it go.

A. Yes, I think it is all right.

Q. I think your Company has, through your authorized agent, made twenty-three purchases of land involving twenty-three transfers in the city of St. Paul in the years 1905, 1906, 1907 and 1908; is that correct?

A. That is correct.

Q. With an aggregate consideration paid therefor of $433,-310.61.

A. That is correct.

Q. Have those purchases been made under your supervision, am I correct in stating that?

A. Yes, sir.

Q. I show you Complainant's Ex. 71—Cooper and ask you what that purports to show. That exhibit was prepared by you or under your direction, was it?

A. Yes, sir. Exhibit 71 is a list of all property purchased by the Northern Pacific Railway Company within the corporate limits of St. Paul, from January 1, 1905, to December 31,

1908, covering the entire period that I have been Land Commissioner of the Company, showing date of purchases, from whom purchased, purchase price, assessed valuation for the year 1906 and the percentage which the assessed valuation bears to the purchase price. The exhibit is made in detail showing each purchase and is segregated under two headings for a reason which will appear later, the two headings being, "Property purchased direct from owner by Northern Pacific Railway Company," the other, "Property purchased and title taken in the name of various individuals, the connection of the Northern Pacific Railway Company with the purchases being concealed." The property purchased direct, the aggregate purchase price was $354,110.61, of which the assessed valuation was $96,487.22, being 27 per cent; that is to say, the assessed valuation was 27 per cent of the purchase price.

Q. On the average?

A. On the average of all the purchases. The aggregate quantity of property purchased, title taken in the name of individuals, the connection of the Company being concealed, was $79,200, of which the assessed valuation was $23,855, and the percentage that the assessed valuation bore to the purchase price 30.1 per cent. Following that the statement summarizes the two classes of purchases, showing a grand total of all purchases of $433,310.61, and an assessed valuation of $120,342.22, and an average assessed valuation of 27.8 per cent; that last figure being the relation of the assessed valuation to the purchase price on all of the purchases shown on the exhibit.

Q. There appear to be fifteen different transfers, covering many individual subdivided lots, under the first chapter covering property purchased direct from the owner, and eight different transfers under the second chapter; that is, property purchased under guise of a private purchase without the connection of the Railway Company being disclosed. State gen-

erally the location of the tracts covered by those respective purchases; I do not mean state in detail, but state whether they were in one district or whether they were spread over the city in different portions.

A. Eighteen of the twenty-three purchases are of the property lying between Commercial street and the St. Paul & Duluth terminal grounds and Sixth street and the tracks of the Burlington and Milwaukee going down the river. Have I made myself clear as to that locality?

Q. I think so. It is that terminal property within the wholesale district in general of the city of St. Paul?

A. Yes, it is property that lies between Dayton's Bluff and the property which the Railway Company formerly owned.

Q. And the other five?

A. Two of the other five are property near St. Anthony Park; in fact, a part of it is platted property in St. Anthony Park.

Q. Who were the sellers?

A. Charles H. Pratt.

Q. In both cases?

A. In both cases. Two of the purchases, (the first one that appears on the list being from John Wagener et al., and another one which appears from the same John Wagener, under date of November 8, 1908,) were for an additional strip of property to widen out our right-of-way a short distance north of Seventh street on the St. Paul & Duluth line. That leaves still one other purchase, which is that shown on the list as having been made from the Tri-state Land Company. That purchase was in the nature of a trade with the Soo Railroad Company; the Tri-state Land Company being a subsidiary corporation of the Soo. The purchase price, as shown for the property bought from the Tri-state Land Company, was determined by an arbitration; that is to say, the Northern Pacific and the Soo could not agree, and the price was de-

termined by arbitration. That accounts for the twenty-five items.

Q. The percentage relation of the assessed valuation to the purchase price of the property given by the Northern Pacific Company in its acquisition of all property, varies from 1.9 per cent in the case of the property bought from the Jacob Schmidt Brewing Company for the sum of $10,500 to 87.7 per cent in the case of the property acquired from the Tri-state Land Company which you have last mentioned. Were there any particular circumstances connected with the acquisition of the Jacob Schmidt Brewing Company property that would throw any information upon this question that we are now considering? What was that property?

A. That was a triangular piece of property—

Q. Improved or unimproved?

A. Unimproved;—down in the district that I have described as lying between Commercial street and the St. Paul & Duluth railroad. There was nothing peculiar about the property. I suppose you mean can I throw any light on why its assessed valuation should be so low as compared with the purchase price?

Q. What was it usable for excepting railway purposes?

A. It could have been used for warehouse purposes. Its proximity to existing railroads made it quite available for a warehouse site and it could have been used for that. On one of the pieces of property which I purchased at that time (I can't tell whether it is that particular piece or not) there was a well, that was said to be very valuable. I never investigated the subject. We didn't want any well, and I couldn't figure any value that a well would have down there for any particular purpose, but I can recall that being given me in the negotiation as a reason why the price was stiffer than I thought it ought to be; I remember their having spoken about there being a good well there.

Q. Do you remember the acreage of this property, its area? It is described as a part of block 51, east of the right-of-way.

A. No, I do not. I don't think I have that information with me at all.

Q. Does that exhibit cover all the purchases you made in St. Paul during that time?

A. Yes, sir.

Q. I think that during the same period the Northern Pacific Company has, under your supervision, purchased property in the city of Minneapolis involving seventy-nine transfers; is that the fact? Property covered by fifteen of those transfers was purchased direct from the owner by the Northern Pacific Railway Company, and property covered by sixty-four of those transfers was purchased under the guise of a private transaction without the connection of the Northern Pacific Railway Company being disclosed?

A. That is correct.

Q. Have you prepared a statement covering these Minneapolis properties, and of the same character as Ex. 71—Cooper covering the St. Paul purchases?

A. Yes, sir.

Q. I hand you that statement, which has been marked "Complainant's Ex. 72—Cooper," and ask you to explain that and state generally what it purports to show.

A. Ex. 72 is a list of all property purchased by the Northern Pacific Railway Company within the corporate limits of Minneapolis from January 1, 1905, to December 31, 1908, covering, as in the case of the St. Paul purchases, the period that I have been Land Commissioner of the Company, showing date of purchases, from whom purchased, purchase price, assessed valuation for the year 1906 and the percentage which the assessed valuation bears to the purchase price. It is divided in the same manner as the St. Paul exhibit was; that

is to say, under two headings, "Property purchased direct from owner by the Company," "Property purchased and title taken under the name of various individuals, the connection of the Company with the purchase being concealed." The property purchased direct aggregates fifteen different purchases, total consideration $32,702.31; assessed valuation, $7,892; average percentage assessed valuation to purchase price, 24.1 per cent. The property purchased under cover was sixty-four different purchases, the total consideration of which, after deducting the school-building, which we purchased, (which is deducted for the reason that it was not assessed and we could not make the comparison,) the purchase price of the sixty-four purchases was $152,361.10; the assessed valuation, $56,265; the percentage assessed valuation to purchase price 36.9 per cent. The exhibit then summarizes the two classes of purchases, that purchased direct and that purchased under cover, and shows a grand total purchase price of $185,063.41; a total assessed valuation of $64,157, and an average percentage of assessed valuation to purchase price of 34.6.

Q. The percentages of the assessed valuation to the purchase price run all the way from 7½ of 1 per cent, in the case of a transaction involving a consideration of $600, to 142 per cent in a transaction involving a consideration of $322.64; and the largest single transaction, that of a purchase from William B. Boardman, for the sum of $26,500, shows a percentage of assessed valuation to the purchase price of 35.7 per cent; is that correct?

A. That is correct.

Mr. How: I offer those two exhibits.

Q. Have you prepared a statement showing the application of the Morgan-method of determining values in St. Paul and Minneapolis, as you understand it, during the last four years, to the properties purchased by your Company during the last

four years covered respectively, by exhibits 71 and 72, the valuations produced by that method and a comparison between such valuations so produced and the actual prices paid by your Company in the actual transaction?

A. I have.

Q. Will you produce that statement, please?

Statement produced and marked "Complainant's Ex. 73—Cooper."

Q. Will you describe that statement, show in what manner and upon what basis it has been prepared, and what you have intended to show by it?

A. After listening to Mr. Morgan's testimony, I thought I would prepare Exs. 71 and 72, showing all properties purchased by the Northern Pacific in the cities of St. Paul and Minneapolis, and that I would apply his plan to those purchases and see what the result would be. Ex. 73 is the result of that work; that is to say, it is a statement showing the application of the plan of state engineer Morgan for determining cost of reproducing the properties of the Northern Pacific Railway Company in the cities of St. Paul and Minneapolis to the properties purchased by that Company in those cities in the four years from January 1, 1905, to December 31, 1908. The St. Paul computation is made first, and it starts out by taking up the item of the assessed value of all the property purchased direct from the owners, as shown on Ex. 71, aggregating $96,487.22; following then, Mr. Morgan's method, we add four-sixths to that amount to determine true value.

Q. And that is because he took the assessed value as 60 per cent of the market value?

A. Yes, his testimony showing that he found that the relation of the assessed value to the sales value or true value was 60 per cent.

Mr. O'BRIEN: Will you let me ask you a question? Where

do you get these amounts stated in Ex. 73? are they taken from Ex. 71?

WITNESS: Yes.

Mr. O'BRIEN: You are not taking all in Ex. 71?

WITNESS: Yes, I take it up later, but as I explain it you will see how it goes. I first take up the property purchased direct from the owners, as shown on Ex. 71, the assessed valuation of which is $96,487.22. I then add the four-sixths to arrive at the true value according to Mr. Morgan's plan. That adds $64,324.80 to the assessed value; the two together should produce the true value, which is $160,812.02. I then, still following Mr. Morgan's plan, add 75 per cent to determine railroad price, that being the amount that he said he estimated the Railroad Company had to pay in St. Paul above true value. After that 75 per cent has been added, I then produce what should be the railroad price. I then show that the price actually paid by the Northern Pacific for that identical property, as shown on Ex. 71, was $354,110.61. Then I show that the acutal price paid exceeded the railroad price as determined by Mr. Morgan's plan, $72,689.57, or 26 per cent. That ended the calculation on the property purchased direct from the owners in St. Paul. I then take up the next item that appears on Ex. 71, being the property purchased under cover, the assessed valuation of which as shown on Ex. 71, is $23,855. I again add four sixths to determine true value, and then produce a true value of $39,758.32. This property having been purchased under cover, presumably it was purchased for its true value; therefore, I do not add the 75 per cent in this case as I did in the former. I then show that the price actually paid by the Company for the property, as set forth on Ex. 71, was $79,200, and that the excess (actual price over true value) as determined by Mr. Morgan's method, was $39,441.68, or 99 per cent.

Q. Now this exhibit contains the same calculations, made

in precisely the same manner, with regard to Minneapolis, and, further, a summary in which the same calculations made in the same manner, are made of the St. Paul and Minneapolis properties combined, covered by Exs. 71 and 72—Cooper, respectively?

A. That is correct.

Q. Now, will you state in the record the result of the Minneapolis calculations and the result of the combined calculation?

A. The excess on the property purchased direct from the owners in Minneapolis was $9,617.85, or 41.7 per cent; that being the excess of the actual price over the railroad price, determined on Mr. Morgan's plan. On the property purchased in Minneapolis, in which the connection of the Company was kept concealed, the excess of the actual price over true value, as determined by Mr. Morgan's plan, was $49,500.04.

Q. Being what per cent?

A. Being 48.1 per cent. The exhibit then follows that statement showing St. Paul and Minneapolis figures combined, and on final analysis it says that the total price of the property, on the Morgan plan, being the price at which the Company should have been able to purchase the property if Mr. Morgan's plan was believed in by everybody and acted upon by everybody, was $447,124.88; the actual price which the Company paid for the property was $618,374.02; the excess of the actual over the Morgan plan was $171,249.14, or 38.3 per cent in the two cities combined.

Q. I might ask you, Mr. Cooper, if there is any particular property, covered by either Complainant's Ex. 71 or Complainant's Ex. 72, which the Railway Company bought under circumstances so that it could get what it considered a low price, that is, without any pressing needs for the property for immediate railroad use.

A. Practically none of this property, either in St. Paul or

Minneapolis, was purchased under stress of time; that is to say, we had ample time, with all of it, to purchase it to the best advantage. We found, as is always the case, that we could keep ourselves concealed for a while, then it became generally known (surmised first, and then openly known) that we were buying, and the prices, of course, went up. Some of the property we thought we got very reasonable; some of it we thought we were paying pretty stiff prices, but concluded we could not do better in condemnation, probably not as good.

Q. With respect particularly to the St. Anthony Park property purchased from Pratt?

A. The St. Anthony Park property, we were tempted into buying that, I might say; we had no idea of making that purchase at all, but it was offered to us at a very tempting price, and it lay between the rights-of-way of the Northern Pacific and the Great Northern in a locality where we thought perhaps some day we could use it to advantage, and because of the tempting price, principally, we bought it.

Q. It was bought at what you considered a low price?

A. A low price.

Q. You bought largely for that reason, as I understand it?

A. Yes; of course, we were not speculating in real estate, and if we hadn't had an idea that we might use it some time, we would not have thought of buying it then, though the price was low, but having in mind that some day we might be able to use it to advantage and because of the low tempting price we made the purchase.

Mr. How: My object is to show that it was not a forced price; the aggregate consideration is $53,085.61 for the two transfers.

Q. I hand you a paper which is marked "Complainant's Ex. 74—Cooper." Was this exhibit prepared under your direction?

A. Yes, sir.

Q. Will you state what it shows?

A. Ex. 74 is a schedule of all deeds filed for record from January 1, 1909, to February 28, 1909, with the register of deeds of Ramsey county, Minnesota, covering property within the corporate limits of St. Paul, excepting quitclaim deeds, deeds where consideration was nominal, tax-deeds and sheriff's deeds, also showing the assessed valuation for 1908 on each tract. I got the information for this schedule from the St. Paul Abstract Company. I instructed them to make me up a schedule of all deeds filed in the county register of deeds' office covering the two months of January and February, excepting the deeds of the character I have indicated, and to show the assessed valuation of 1908 on each tract. This statement is the result of those instructions. It shows, summarized at the end of it, that there were 411 transfers of property within the corporate limits of St. Paul during that period; that the total consideration was $1,045,133.07; that the assessed value of the property was $527,497.80, being an average of 50.5 per cent. Following that recapitulation is a summary of the percentages of the assessed valuations to the considerations, showing that there were 14 transfers in which the assessed valuation bore a relation of 10 per cent or less to the consideration, 12 that run between 11 per cent and 20 per cent; 24 that run between 21 per cent and 30 per cent; 55 that run between 31 per cent and 40 per cent; 60 that run between 41 per cent and 50 per cent; 51 that run between 51 per cent and 60 per cent; 41 that run between 61 per cent and 70 per cent; 31 that run between 71 per cent and 80 per cent; 18 that run between 81 per cent and 90 per cent; 17 that run between 91 per cent and 100 per cent; and that 88 of the total of 411 run over 100 per cent. I may state that the purpose of preparing this statement was to confirm, in a fair manner, as I think, the inequalities in the assessments in St. Paul, and for that reason we simply went to the records

and took every transfer for those two months' period and have worked out this table showing the inequalities in the assessments.

Q. You have had considerable experience, Mr. Cooper, in valuing real estate for the purpose of acquiring it for the Railway Company, and also in connection with statements filed with the state Commission and with giving testimony in various cases?

A. I am sorry to say I have.

Q. I ask you if, from this statement, you know of any method by which you can place a market value (so-called in this lawsuit) or a railway value (so-called in this lawsuit) upon any one or more of the lots covered by this Ex. 74—Cooper from the information which that exhibit contains in the way of the relation of its assessed valuation to the consideration which was paid for it in the actual transaction of sale?

A. Absolutely none. That is obvious when you consider that these assessed valuations run all the way from five per cent—

Q. To three hundred odd per cent, perhaps higher?

A. Without running through, I find one item of 370 per cent, which will illustrate what I mean. There may be some lower than that and some higher. This exhibit was only finished yesterday, and I mention that to explain why a mistake that I see in it was not discovered. I observe here an item on the sixth page, the second item, in which there is a consideration given of $1,175, and under the assessed valuation it says "exempt;" unless the $1,175 was deducted from the total consideration,—

Q. It was, at the bottom of the page.

A. Unless the $1,175 was deducted from the total consideration, it would be out of joint that much, but I find that it is deducted at the bottom of that page, without any explana-

tion, obviously that is what it is intended for.

Q. Do you recollect the testimony of Mr. Morgan as to the method employed by him in determining values of real estate owned by the Northern Pacific Railway Company in cities, towns and villages other than those in St. Paul, Minneapolis & Duluth, which are the three leading terminals and which were specially treated by him?

A. Yes; I don't know that I could reproduce it exactly, but I think I have it clearly in mind; in fact, I have (not trusting to my memory) a copy of his report, and I have been reading that because that showed exactly what his testimony was; that is to say, he read into his testimony a good deal that is in his report.

Q. My recollection is that he employed in such cities, towns and villages what he called the sales-method or what had been called the sales-method, with an idea of eliminating, so far as possible, personal opinion and to base valuation upon facts.

A. I don't think that Mr. Morgan had any fixed plan outside of the Twin Cities and Duluth; my recollection is that it was a combination of plans; that is, he gathered data from various sources and then checked it all by personal examination and then compared towns of similar size and character, and in all of these different ways he arrived at his ideas of value.

Q. I show you "Complainant's Ex. 75—Cooper." Will you describe Ex. 75—Cooper?

A. Ex. 75 shows the appraisal of the right-of-way and station grounds of the Northern Pacific Railway Company within the corporate limits of all cities, towns and villages in Minnesota, excepting Duluth, St. Paul and Minneapolis, as reported by the Company to the State Railroad Commission, also showing the appraisal of the same property by the engineer of the Commission, and the difference between the two appraisals.

Q. With the percentage of that difference carried out?

A. With the percentage of that difference carried out in each case. This exhibit takes up all of the cities, towns and villages, no matter what their size may be in the state, excepting the Twin Cities and Duluth; shows the Company's figures, both as to the market value and value for railway purposes; shows the State's figures and then the difference between the two; shows that the total market value, as reported by the Company, was $1,343,936.30; that the value for railway purposes of the Company was $3,112,815; that the State engineer's appraisal was, market value, $678,737.94; value for railway purposes, $1,874,392.49; that the Company's report was over the State's report on market value $665,198.36; the value for railway purposes, $1,238,422.51. I might say that I made this report principally to show one particular thing, and that was that in looking over Mr. Morgan's report I observed so many cases in which he had cut my valuation down exactly 50 per cent that I thought I would work it all out until I could see if there was any explanation of the remarkable coincidence of his valuation hitting exactly 50 per cent of mine; and that is worked out and shown at the bottom of this in the way of a comparison. The state decreases the Company one item 80 per cent or four-fifths, four items 75 per cent or three-fourths, five items 66 2-3 per cent or two-thirds, six items 60 per cent or three-fifths, twenty-six items 50 per cent or one-half, four items 33 1-3 per cent or one-third, three items 25 per cent or one-fourth, three items 20 per cent or one-fifth, sixteen items of varying percentages. The increases make two items varying percentages, and our appraisals are identical in eight items. These totals added together making 78. I could not figure it out in any way how with two men making an independent appraisal, one should hit the other's appraisal at exactly one-half so many times if it was made without reference to the figures of the other man before him, and that

was the reason why I worked it out in this manner, so as to show those even percentages that the figures were cut.

Q. That summary shows that the valuations of property in 52 out of 78 of the cities, towns and villages covered were decreased by an exact ratio?

A. That is correct.

Q. And that 26 of those 52 cases are exactly one-half the valuation—by Mr. Morgan decreased (the valuation of which had heretofore been reported to him on behalf of the Company) by exactly 50 per cent?

A. That is right.

Q. Since the testimony of Mr. Morgan in this case (and yours had been given prior to his) have you made any investigation and procured any assistance for the purpose of supporting your own valuations in cities, towns and villages, as against his and for the purpose of establishing that his are too low?

A. I have.

Q. Will you not state with regard to what towns, cities or villages you have obtained and have summarized such information?

A. The list of towns is Brainerd, Stillwater, Little Falls, East Grand Forks, White Bear, Moorhead, Staples, Crookston, Wadena, Detroit, Fergus Falls.

Q. How do those towns compare with other towns in the state through which the Northern Pacific runs and in which it owns properties outside of the three principal terminals?

A. These eleven towns are the largest towns in the sense that the valuation of our property was the largest as reported to the State; in other words, excepting St. Paul, Minneapolis and Duluth, the next town in rank of value of property was Brainerd, and Stillwater next, and so on down to Fergus Falls; so that these eleven towns are the eleven towns in which our valuation is the highest other than the Twin Cities

and Duluth, taken without regard to anything else but their being the eleven highest.

Q. Now, taking Brainerd, for example, will you state what method you pursued for the purpose of procuring either corroboration of your own valuations or refutation of Mr. Morgan's, as the event might prove?

A. I might add, before answering that question, that the market value as reported by the Company to the State of those eleven towns is $911,440.05; that the total market value of the 78 towns, being all of the towns, cities and villages other than St. Paul, Minneapolis and Duluth, including the eleven I speak of, is $1,343,936.30; so that these eleven towns cover three-fourths approximately, of the total value of all the towns, cities and villages other than the Twin Cities and Duluth.

Q. And there were 78 in all?

A. There were 78 in all. Now, then, answering your question,—

Q. And taking Brainerd for your illustration,—Brainerd, you say, is the most important one in the valuation of the eleven?

A. Brainerd is the largest town in the sense of valuation next to the Twin Cities and Duluth. I determined that I would test my valuation and that of Mr. Morgan's by having an independent appraisal made in the eleven towns that we have named, by local appraisers, selecting the best men that I could find, and get their judgment on these values. The method I pursued in Brainerd was a little different from the others. In Brainerd I had the men come down here and I told them what I wanted. The three men I selected in Brainerd were Cornelius O'Brien, formerly mayor of Brainerd, and I believe a member of the state board of equalization; J. M. Elder, a real-estate dealer of Brainerd; and D. W. McKay. I told them what was wanted

and furnished them a map of the property, and told them that they would have to make a certificate reading as follows, and that that certificate would tell them just what was wanted: "We certify that the foregoing appraisal was made at the request of the Land Commissioner of the Northern Pacific Railway Company; that it correctly represents, according to our best judgment, the present value of the naked real estate, without improvements, based upon the prices at which abutting property and other property of similar value for business or residence purposes is being bought and sold for, in the ordinary course of real estate trading, and that we have made no allowance for the necessary increased price which a railway company will have to pay in purchasing the property." These three gentlemen were told "that is the certificate that you have to make; I want your best judgment on these values. Here is a map; you go off by yourselves, now, and make up your valuation." I did not tell them what my valuation was, nor did I tell them what the State engineer's was. They were given the map and went off, and in due course of time brought back their appraisal. Curiously enough, they were given the copy of the map which we had furnished the State with our report, and without knowing that such was the case, in the corner of that map was a typewritten statement of what my appraisal was as returned to the State in our report. I did not intend that they should have that information at all, but it just went out in that way. I didn't observe that it was on the map and knew nothing about it until they brought the map back and asked me what those figures were. They had surmised, though, what they were, so they knew what my valuation was in that case. But in every other case, of all the other ten towns they were not told my figures; they were not told the State's figures and were not told the purpose of the appraisal at all. They may have surmised it, they may have got the figures from some other

source, but they were not furnished by me. In fact, I wanted the best judgment of those men. Now then, the result of the Brainerd—

Mr. O'BRIEN: We object to this as not rebuttal, as incompetent, irrelevant and immaterial. I imagine that the witness is about to give the result of that investigation.

Mr. HOW: He is.

The MASTER: Objection noted.

A. I have in my hand the report of these gentlemen. It shows in full detail their appraisal, by lots and blocks, and attached to it is a map, the map that was used by them in making their appraisal. Their total valuation is $352,801.75. That is for Brainerd. My appraisal of Brainerd (and all this time we are taking market value now, all these appraisals were made on the basis of market value) my appraisal, market value at Brainerd was $425,704.50; the State engineer's appraisal, market value, at Brainerd, was $125,120; local appraisers (their total) is $352,801.75.

Q. Their appraisal was approximately $75,000 less than yours and $225,000 more than Mr. Morgan's?

A. That is approximately correct. Following the appraisal and the certificate which I have read, signed by these gentlemen, is this certificate: "I certify that I have been a resident of Brainerd, Minnesota, for twenty-six years, have always owned more or less property in the city during this time and at the present time own real estate amounting to about $50,000, some of which is located in every ward of the city. I believe that I am thoroughly familiar with real estate values." That is signed by Cornelius O'Brien. J. M. Elder makes a similar certificate, that he has been a resident of Brainerd for twenty-two years, during all of which time he has been engaged in the real estate business, and owns property in the city and property in the county. W. D. McKay makes a similar certificate, that he has been a resident of Brainerd for

twenty-nine years, dealt extensively in real estate, owns considerable real estate. Following the three certificates of these gentlemen, each signed by himself, is another certificate which reads, "I certify that I am well acquainted with J. M. Elder, Cornelius O'Brien and W. D. McKay and have known them during the past twenty-two years and believe them to be well qualified to appraise the value of property within the corporate limits of Brainerd." This is signed by M. H. Ingersoll, postmaster.

Mr. O'BRIEN: I suppose this is all taken under objection.

Mr. How: It may be. A large part of Mr. Morgan's testimony was of the same kind.

Q. Now, in what respect did your method in these other cities which you have specifically named differ from that in Brainerd excepting as you have stated?

A. I did not send for any of the other appraisers at all. When I determined to pursue this matter I wrote to our agents at some of the stations, and then concluded I would send one of my right-of-way agents out because the matter was in a hurry and I hadn't time to indulge in correspondence; sent one of my right-of-way agents out to consult with the agent or other officer of the company at each place, and he selected the two best real estate men that were recommended to him to make the appraisal. I furnished him the map to be given the appraisers in each case, the form of the certificate which I have read and which in each case is identical, and then told him what kind of a certificate I wanted them each to make as to their own qualifications (that is, in a general way) and then that I wanted to get the certificate of the mayor or the postmaster or some other official as to the appraisers' qualifications for doing the work. In each case, as I say, that was all that was given the appraisers. They were not told the purpose of their appraisal; they were not told what my figures were or what the State's figures were.

Q. And, so far as you know, don't know to this time?

A. That is correct. Some of the appraisers I know; some of them I know by reputation, and some of them I don't know at all.

Q. I show you "Complainant's Ex. 76—Cooper," and ask you if that is a summary of the information obtained by you in these respective towns in the manner that you have described?

A. It is.

Q. It contains, in the first column, the names of the respective towns, in the next, the valuation of the properties, the real estate in those respective towns returned by the Company to the State board, in the third the valuation upon the same respective properties made by the State engineer; in the fourth, the report of the respective appraisers to you under the circumstances which you have described, and, in the fifth, the names of the appraisers in each town, omitting Brainerd (as to which you have already testified); will you state who these respective appraisers are in each of these towns?

A. In Stillwater, the appraisal is made by L. B. Castle and R. W. McGarry. The certificate, as I have stated before, in each case, is identical as showing how the valuation was made. Mr. Castle also certifies that he has been a resident of Stillwater for 41 years and engaged in the real estate business for twenty years. Mr. McGarry certifies that he has been a resident of Stillwater for 40 years, engaged in the real estate business for ten years and has been for four years past city assessor. The certificate of these two gentlemen is followed by one which reads, "I certify that I am well acquainted with L. B. Castle and R. W. McGarry and believe them to be well qualified to appraise the value of property within the corporate limits of Stillwater, Minnesota. Dated at Stillwater, Minnesota, this fourth day of March, 1909"; signed by J. G. Armson, mayor of Stillwater.

The appraisal at Little Falls was made by Henning Landahl and John Vertin. Mr. Landahl certifies that he has been a resident of Little Falls for twenty years, during all of which time he has been actively engaged in the real estate business. John Vertin testifies that he has been in the real estate business in Little Falls for ten years. Following the certificate of these gentlemen is one which reads as follows: "I, George F. Moegelin, mayor of the city of Little Falls, Minnesota, hereby certify that I am well acquainted with H. Landahl and John Vertin; I know them to have been actively engaged in the real estate business in this city for twenty and ten years respectively, that I consider their judgment in all real estate matters sound and conservative and by far the most reliable of any two real estate dealers that could have been selected for any appraisal or estimation of property. Dated at Little Falls, Minnesota, February 23, 1909. George F. Moegelin, Mayor."

At East Grand Forks the appraisal was made by T. A. Sullivan and G. R. Jacobi. Mr. Jacobi certifies that he has been in business in East Grand Forks for twelve years, that he is secretary of the Building and Loan association and cashier of the First National bank, that he has sold many pieces of real estate and has made many loans during the past ten years on improved property in this city. T. A. Sullivan certifies that he has been a resident of East Grand Forks for seventeen years, that he is senior member of the firm of Sullivan Bros., engaged in the real-estate and farm-loan business since January 1, 1891, that he is half-owner in an addition to the city of East Grand Forks. That is followed by a certificate which reads: "I certify that I am well acquainted with T. A. Sullivan and G. R. Jacobi, and believe them to be well qualified to appraise the value of property within the corporate limits of East Grand Forks. Dated at East Grand Forks this 25th day of February, 1909, (signed) Hugh Dunlevy, Mayor."

The next is White Bear, where the appraisers were Julius Haussner, and Henry A. Warner. Mr. Haussner certifies he has been a resident of White Bear for 22 years, been actively engaged in the real estate business in that village for that time. Mr. Warner, that he has been a resident of White Bear four and one-half years and engaged in the real estate business during that period, and that he is also cashier of the First State bank. That is followed, in this case, by two certificates, the first of which reads: "I, certify that I am well acquainted with Julius A. Haussner and Henry A. Warner and believe them to be well qualified to appraise the value of property within the corporate limits of White Bear." That is signed by J. M. King, postmaster. Then that is followed by another certificate reading identically the same and signed by Thomas Milner, Mayor.

The next one I have is Moorhead where the appraisers were S. G. Comstock and C. A. Wheelock. Mr. Wheelock certifies that he has been engaged in the real estate business in the city of Fargo since October 1, 1897; because of the proximity of Fargo to Moorhead he is familiar with real estate values in Moorhead, and has further qualified himself since being requested to make the foregoing appraisal by gathering information as to real estate values in Moorhead from local real estate dealers and others familiar therewith. Mr. Comstock follows that with a certificate in which he says he "has been a resident of the city of Moorhead since 1871, owns considerable property in the city, has done considerable trading in real estate therein and am fully conversant with real estate values" in that city. Mr. Comstock is such a well known gentleman that I suppose they didn't think it was necessary to get a certificate of the mayor; at all events, they didn't send me one. Mr. Comstock was formerly congressman and you gentlemen probably all know him.

The next one is Staples. The appraisers at Staples were E.

E. Greeno and W. H. Poore. They certify that they have been residents of Staples for 19 years, thoroughly conversant with values of real estate in the city; "each of us has been engaged in the real estate business for the past ten years." That is followed by a certificate which reads, "I hereby certify that I am well acquainted with W. H. Poore and E. E. Greeno, believe them to be well qualified to appraise the value of property within the incorporated limits of the city of Staples, Minnesota. Joseph Wolf, City Mayor."

At Crookston the appraisers were E. M. Walsh and J. D. McPhee. Mr. Walsh certifies that he has been a resident of Crookston for 35 years, owns considerable property in and about the city, has been in the real estate business in that city for 15 years. Mr. McPhee certifies that he has been a resident of the county for 30 years and of Crookston for eight years, that he owns property in and about Crookston, and is familiar with real estate values. Then that is followed by a certificate which reads: "I hereby certify that I am well acquainted with E. M. Walsh and J. D. McPhee and believe them to be well qualified to appraise the value of property within the corporate limits of the city of Crookston." That is signed by L. E. Gossman, Judge of the Municipal Court of Crookston. That didn't impress me very much—that certificate, a police judge, as I sized him up to be, and I wrote and inquired and found that Mr. McPhee, one of the appraisers was the Mayor himself, which was the reason I didn't get the certificate from the mayor, because one of the appraisers was the mayor, but he got the police judge to endorse him.

The next one I have is Wadena.

Mr. O'BRIEN: Is there any certificate of the clerk of court that he was the police judge?

WITNESS: No. The next one I have is Wadena; the appraisers there were Robert G. Isherwood and Asher Murray. Mr. Isherwood certifies he has been a resident of Wadena for

ten years, during which period he has been engaged in the real estate business. Mr. Murray certifies he has been a resident of Wadena for 28 years and been in the real estate business during that period of time. That is followed by a certificate reading: "I certify that I am well acquainted with R. G. Isherwood and Asher Murray and believe them to be well qualified to appraise the value of property within the corporate limits of Wadena." That is signed by H. J. Maxfield, County Attorney, Wadena county.

Following that I have Detroit; the appraisers were Charles G. Sturtevant and John K. West. Mr. Sturtevant certifies he has been a resident of Detroit for 39 years, actively engaged in the real estate business for 20 years; Mr. West that he has been a resident of Detroit for 28 years, actively engaged in the real estate business for 20 years. That is followed by a certificate reading: "I certify that I am well acquainted with Charles G. Sturtevant and John K. West and believe them to be well qualified to appraise the value of property within the corporate limits of Detroit." Signed L. C. Weeks, Mayor.

The last one I have is Fergus Falls. The appraisers there were Fred H. Lake and George B. Lowry. Mr. Lowry certifies that [illegible]as been a resident of Fergus Falls for 29 years, engaged in the real estate business for 27 years; Mr. Lake that he has been a resident of Fergus Falls for 28 years and engaged in the real estate business 27 years. That is followed by two certificates, one of which reads, "I certify that I am well acquainted with Fred H. Lake and George B. Lowry and believe them to be well qualified to appraise the value of property within the corporate limits of Fergus Falls; signed by E. A. Jewett, Cashier First National Bank of Fergus Falls. Then follows another certificate identically the same signed by J. H. Gard, City Clerk of Fergus Falls.

Mr. How: I offer Complainant's Ex. No. 76—Cooper (which is the summary); I also offer Ex. 74—Cooper. I would say, with regard to the information of which Ex. No. 76—Cooper is a summary, that detailed reports, accompanied by maps in each instance, from the appraisers in each one of these towns covered by Ex. 76—Cooper, is at hand and available for use of counsel for the defendants. I trust that the method of putting in this evidence will appeal to the Court and counsel as an endeavor to avoid the necessity of bringing numerous witnesses from all over the state and prolonging this trial beyond any possible tolerance.

Adjourned until the morning of Tuesday, March 9th.

FEDERAL BUILDING, St. Paul, Minn., March 9, 1909.
The hearing was resumed at 10 o'clock A. M.

THOMAS COOPER
recalled on behalf of Complainant, testified:

By Mr. How:

Q. Mr. Cooper, during the past three years the Northern Pacific Railway Company has been constructing a new line between Frazee and Detroit and between Lake Park and Glyndon, Minnesota, to take the place of the old line with a better grade, as I understand it?

A. That is correct; better grades and less curvature.

Q. That involved the acquisition of right-of-way between those respective points?

A. That is correct.

Q. Was that acquisition under your charge?

A. Yes, sir.

Q. You have prepared a statement of the expenditures made through you for this right-of-way?

A. Yes, sir.

Q. I show you "Complainant's Ex. 77—Cooper." This exhibit purports to show a description of the respective tracts purchased for the right-of-way in question, with the names of the grantors in the conveyances to the Company, the acreage of each tract and the consideration for each tract in detail?

A. That is correct.

Q. At the end of that statement is a chapter entitled "Miscellaneous Charges." Will you describe the items in that and state the character of the expenditures and the necessity for them?

A. The statement as made up includes all of the charges made to the construction account of right-of-way and land damages, that account being kept in accordance with the Interstate Commerce Commission's distribution of expenditures; therefore, it includes not only actual lands purchased, but easements and rights of various kinds, that had to be acquired in order to carry out the construction work. The first item that appears in the miscellaneous charges, on page 13, is a payment of $50 made to the American Mortgage Company of Scotland, for the right to change channel in section 7—137—46; following that is a similar payment made to L. Welter, for similar right to change channel in section 7—139—45. That payment to Welter being $2,100. Following that is a payment of $2,400 made to Riverton Township for the right to vacate a highway, or rather, for their consent to the vacation of a highway. Then following that is a release of damages for vacating the same highway (I think it is) and an additional strip of land which we purchased from that party to make a new highway; the item I refer to being a payment to Romkey of $900. Following that is a payment made to S. Shermoen of $1,000 for his consent to the vacation of a highway. Following that is a payment made to the Northwestern Telephone Exchange Company, covering the actual cost to them of moving their telephone line from the right-of-way strip that we had acquired on to a new

location; that is to say, the new right-of-way which we purchased, we found the telephone line there, under permission from the property owners, and we had to pay the telephone company the cost of moving their line over, out of our way, on to a new location. The next four items, paid to various parties for easements, for a pipe-line. That means one of our water-pipes. We had to go to the river to get our water, and we had to pay them for easements to lay the pipe-line across their property. Following that are five payments of small amounts to five different parties for permission to construct drainage ditches on their land. The construction of our new line changed the physical configuration of the country to such an extent that we had to construct new drainage ditches as well as change highways, etc. The next payment, of $1,700, was for release of damages paid to O. O. Hagen, on account of the construction of the new line through the town of Hawley. The next payment is a payment to G. H. Halvorson, of $450, for the same reason.

Q. A release of damages to his property?

A. Release of damages to his property in Hawley. The next payment is to J. McDonall of $600, for release of damages to his property in Hawley. The next following is a payment to H. F. Mensing, of $1,500, for waiver of a crossing. He had a crossing and we changed the grade of the line so that it was cheaper for us to buy his consent waiving the crossing or eliminating it, rather, than to give him a crossing on our new line.

Q. Because you were so much above grade?

A. I can't remember whether we were so much above or below, but it was for one of those two reasons. It was on account of the grade; we either had to carry him under our track or over it, I don't remember which; we couldn't give him a grade crossing on the new line; that is, we could, but it was cheaper to pay him the $1,500 than construct the new crossing.

The next following item is a blanket item of all of the different charges made, covering the expense of buying this right-of-way, aggregating $9,508.10. That covers the employes of the right-of-way department, abstracts, recording fees, all miscellaneous expenses properly chargeable to the work of acquiring this right-of-way.

Q. Does it include attorneys' fees for examining titles?

A. Where we employ outside attorneys we charge the amount we pay them into this account, but where our own regular salaried employes of the legal department do the work there is no charge made. I don't recall whether we employed any outside attorneys in these cases or not; I think we did. Yes, I think we did; we had some small payments there to an attorney in Moorhead and perhaps to another attorney in Hawley.

Mr. How: We desire to correct the first total on page 13 to correspond with the total carried forward at the bottom of the page, the first total being erroneous; it should be 614.039 acres instead of 617.999 acres.

Q. From this statement it appears that there were 614.039 acres acquired, at a cost for the principal purchase of the land of $140,065.35, and that, with the addition of the items which you have specifically described, the total cost was $163,121.45, being an added cost over the actual consideration for the land immediately occupied for the right-of-way, of in the neighborhood of $23,000?

A. That is correct.

Q. Now, am I right in assuming that that $23,000 is comprised of items which in making your valuation of your right-of-way, both in the state of Minnesota and at large for the System, you have included among the items contained in your so-called multiple?

A. That is correct; that is a part of the expense that we include in the difference between the so-called market value

and value for railway purposes.

Q. Then, in making your valuation, you have not included in it easements which you have had to purchase for drainage purposes, etc., excepting generally in that multiple as one of the items constituting the added cost above what has been called the true value, or the market value, or the first value, or basic value, or what-not?

A. That is correct.

Mr. How: Complainant's Ex. 77—Cooper is offered in evidence, but without the map, which is produced simply for the assistance of the Master and counsel, if they desire to refer to it.

Q. The final summary of this Ex. 77—Cooper shows the acquisition in Hawley (which we shall cover by a separate exhibit) of thirty-one and a fraction acres; in Lake Park (which we shall also cover by a separate exhibit) of seventeen and a fraction acres; and in the country of 565 and a fraction acres. Exhibit 77 includes the towns of Hawley and Lake Park?

A. That is correct; it is all charged to one account, and I have simply segregated it in this exhibit.

Q. Outside of those towns there are 566 acres, approximately, in the country, which seem to have cost the Company $142.15 per acre, on the average; will you compare that actual cost of $142.15 of this land in the country with your estimate made for the value of the old right-of-way and that of Mr. Morgan upon the same property?

A. In the report made by the Company to the State the right-of-way between Frazee and Detroit, in Becker county, is shown as having a market value of $35 per acre and a right-of-way value of $105 per acre. In the same report, the right-of-way in Clay county is shown as having a market value of $50 per acre and a right-of-way value of $150 per acre.

Q. And that corresponds with the statement introduced by you?

Mr. O'BRIEN: That is in the report, he says.

Mr. How: In the report of the Company to the State?

Mr. O'BRIEN: Yes.

A. And that is the valuation that I have testified to in this case. I am now speaking of the old right-of-way. Exhibit No. 77 is a statement in detail of all of the purchases of right-of-way for the new line between these same points; that is to say, between Frazee and Detroit and between Lake Park and Glyndon, embracing portions of Becker and Clay counties. The New right-of-way runs through the villages of Lake Park and Hawley, as did the old, and, in order to make proper comparison, the right-of-way through these two villages is shown separately in Ex. 77, and the statement is summarized under the different headings of Hawley, Lake Park and Country. The exhibit shows that the cost per acre of the country right-of-way averaged $142.15.

Q. For the two counties Becker and Clay?

A. For the two counties Becker and Clay.

Q. And your estimate as introduced in this case gives $105 for your estimate of Becker county and $150 as your estimate of Clay county?

A. Yes; that is just what I was coming to in a minute. The new right-of-way was not included in the report made to the state. The relative position of the two rights-of-way is shown on the blue-prints, on which the old right-of-way, included in the report to the State, is colored yellow and the new right-of-way is colored red. It will be observed that the two rights-of-way are at no point more than about two miles apart, and they run through land of similar value and character; therefore, the Company's valuations of the old right-of-way of $105 per acre in Becker county and $150 per acre in Clay county would appear to be fully justified by the actual cost of the new right-of-way. The State engineer's report shows a market value of the old right-of-way, between Frazee and Detroit and between Lake Park and the county line of Becker

county, of $18 per acre, market value, and $54 per acre right-of-way value; also shows a market value in Clay county of $24 per acre and a right-of-way value of $72 per acre. Both the Company and the State's engineer used the same multiplier, of three, and the figures quoted are, in each case, for right-of-way in the country and do not include any towns or villages. Summarized, the right-of-way in the districts under consideration valued by the Company at $105 and $150, respectively, per acre, is reduced by the State to $54 and $72 per acre, whereas, the actual cost of the new right-of-way was $142.15 per acre.

Q. Now, will you compare the actual cost of this new right-of-way within the limits of the town of Hawley (or the village or city, whichever it is,) with the valuation of the old right-of-way testified to by Mr. Morgan, the State's engineer, and your own valuation as testified to by you in this case.

A. In the report made by the Company to the State, the right-of-way, within the corporate limits of Hawley, aggregating 48.76 acres, was valued at $58,512, being at the rate of $1,200 per acre.

Q. And that is the same as your testimony?

A. And that is the same as my testimony in this case. In the report made by the State engineer, this item is valued at exactly one-half of the Company's valuation, or at the rate of $600 per acre. I am now speaking, in both cases, of right-of-way value. I present a map on which is shown the old right-of-way through the village of Hawley, colored yellow, being the right-of-way just described. On the map is shown, colored red, the right-of-way for the new line through Hawley, aggregating 31.17 acres; the actual cost of which, as shown by Ex. 77, was $62,924.80, being at the rate of $2,018.56 per acre. The relative value as land of the two rights-of-way is in favor of the old right-of-way, as it runs through the heart of the village, whereas, the new right-of-way is on one side. Assuming the value of the old right-of-way at the same rate per acre as

the actual cost of the new right-of-way, to-wit, $2,018.56 per acre, and being more valuable, it should be higher, it would produce a total of $98,424.99, as compared with $58,512, the valuation of the Company, and $29,256, the valuation of the State engineer. It is evident, therefore, that the valuation of the Company on the old right-of-way was entirely too low, as the 31.17 acres in the new right-of-way actually cost $4,412.80 more than the value placed by it upon the 48.76 acres in the old right-of-way; notwithstanding which, the State engineer reduced the Company's valuation exactly one-half. Pursuing the comparison further, if the Company had been able to purchase the new right-of-way at the value placed by the State upon the old right-of-way, to-wit, $600 per acre, it would have cost $18,702; its actual cost was $62,924.80.

Q. Are you able to make a similar comparison between the actual cost of the new right-of-way in Lake Park,—your valuation of it, as testified to by you in this case, and the valuation placed upon it in the testimony of Mr. Morgan in this case?

A. Yes, sir.

Q. Will you do that, if you please? (Here is a map which may be used for reference.)

Mr. How: This map, as well as the other one, of Hawley, will not be offered unless somebody wants it in the record, but is produced merely for convenience.

A. In its report to the State, the Company placed a right-of-way value of $1,200 per acre upon its right-of-way within the corporate limits of Lake Park, making a total for the 29.34 acres of $35,208. In the report of the State engineer this same right-of-way is given a right-of-way value of $600 per acre, being exactly one-half of the Company's valuation. On the map the 29.34 acres of old right-of-way is shown, colored yellow; abutting thereon is shown, colored red, an additional width of right-of-way, purchased within the past three years, containing 17.02 acres; the actual cost of which, as shown by Ex. 77,

was $19,765.06, or an average of $1,160.13 per acre. It will be observed that the two strips of right-of-way lie side by side, therefore have substantially the same value as land. The old right-of-way was valued by the Company at $1,200 per acre. The new right-of-way actually cost $1,160.13 per acre. Pursuing the comparison further, if the Company could have purchased the new right-of-way at the price per acre, $600, at which the old right-of-way is valued by the State, it would have cost $10,212; the actual cost was $19,765.06.

Q. Your Company has, in late years, bought considerable real estate at Dilworth, for the purpose of new terminals; when was that property purchased?

A. All of that property was purchased within the last three years.

Q. Was that included in the testimony of Mr. Morgan?

A. Part of it is included in the Company's report to the State, and the part that we reported to the State Mr. Morgan also valued. We purchased some additional since, which is not included in my report or his report.

Q. Can you make a comparison between the actual cost of that property, the valuation returned by you in your testimony of the property and the valuation placed upon it by Mr. Morgan in his testimony?

Mr. HOW: There is also a map in connection with this, that will not be offered, but is produced for convenience.

Mr. O'BRIEN: Are you going to offer any part of this?

Mr. HOW: No.

A. In its report to the State, the Company reported 378.17 acres of terminal property at Dilworth, as having a market value of $50 per acre and a value for railway purposes of $80 per acre. Since the report was made, the Company has purchased some additional property at that point, and the Northwestern Improvement Company has also purchased some property. The two companies now own together 472.47 acres at

Dilworth, the right-of-way being shown, colored red. The actual cost to the two companies of the 472.47 acres was $40,239.70, an average per acre of $85.17. All of this property, considered as land, is of substantially the same value. Therefore, the Company's valuation of $80 per acre was really $5.17 less than actual cost, notwithstanding which, in the report of the State engineer, the property is valued at $72 per acre, being $13.17 per acre less than actual cost.

Q. Now, a glance at the map shows that probably less than half, considerably, of the property purchased at Dilworth by the Company and the Northwestern Improvement Company, has been purchased for right-of-way purposes?

A. Yes, the old right-of-way, being that colored red, we have always owned.

Q. Oh, that you owned before?

A. That we have always owned; the additional property was the property we purchased for the terminal, and for townsite purposes, and is shown colored in yellow, and it is the yellow property that I have been discussing and not the right-of-way colored red.

Q. That is clear to me now, (was before except that I had forgotten it.) My recollection of the testimony of Mr. Morgan is that, with regard to streets in Minneapolis occupied by the Company, he made no allowance of value whatsoever, on the assumption that, in case of the present construction of the road, such rights would be granted without cost to the Company, and assuming that they have been heretofore granted and are now held by the Company without cost. Have you prepared a statement showing the actual cost to the Company, so far as it may be now learned, of the right to occupy streets longitudinally which it now does occupy in Minneapolis?

A. I have.

Q. Do you know whether or not that statement contains a full recital of the entire actual cost to the Company?

A. It is impossible to determine whether the statement is complete or not. It will be observed from the statement that the payments were made, the bulk of them, back in 1884 and 1885,—

Q. Twenty-five years ago?

A. —and our records back that far are very imperfect. That is to say, this statement is made simply from the instruments themselves, whatever they show on the face; whether it is $1 or $1,000 as the consideration, we have put it in that way into the statement. Whether the one dollar considerations were the real considerations or not, we cannot now determine; so we have simply taken what the face of the instruments show as the consideration, in each case, to the abutting owners.

Ex. 78—Cooper, is a statement showing the amounts paid to the abutting property owners for release of damages from the operation of tracks on First street North, Ramsey street, Mulberry street and Main street, Northeast Minneapolis. It shows the particular street, in each case, the date of the instrument, by whom executed, the property, and the price paid. Summarized, it shows that on the Ramsey-street line, we paid $16,306.66; on the First-street line, $28,858.67; on the Main-street line, $4,335.58; on the Mulberry-street line, $150. In the Company's report to the State we included the right-of-way of all of these lines at a value; in the State's report he eliminated any value for the right-of-way for these various lines.

Mr. O'BRIEN: You mean the right-of-way in the street?

WITNESS: The right-of-way in the street. And the purpose of this statement was to show the Company actually paid a substantial sum of money for the right to occupy these streets.

Mr. O'BRIEN: What was the aggregate value, as claimed by you?

WITNESS: I couldn't say; I have not attempted to figure that out.

Mr. HOW: Complainant's Ex. 78—Cooper, is offered.

CROSS-EXAMINATION

By Mr. O'BRIEN:

Q. Calling your attention to Ex. 70, you have segregated, in Ex. 70, the values placed upon the properties in St. Paul, Duluth, Minneapolis and outside of those three cities?

A. That is correct.

Q. Have you a statement of the total cost of the property within the three cities?

A. No; I have tried to make up a statement of the first cost, —I presume that is what you mean, the first cost of the property.

Q. First or original cost, yes.

A. I tried to make that up for the Sundberg Senate committee, last session; they asked me to prepare it, and I did the best I could. It was very difficult to get all of the information to make up a satisfactory statement, for the reason that a lot of that property was acquired by the St. Paul & Duluth Company, away back in the sixties, some of it by the company which preceded the St. Paul & Duluth, called the Lake Superior & Mississippi Company, and we tried to cover each piece of property, and made, as I say, the best statement that we could from our records; and that statement I have, a copy of it, and I continued that statement down at the request of Mr. Morgan to April 30, 1908; so that my statement to the Sundberg committee and the continuation of it, which I made for Mr. Morgan, represents the best that we can do in showing the first cost of these properties.

Q. Well, have you that statement?

A. I haven't got it with me, no. We have an extra copy yet, at the office, of both the original and the continuation, which we can furnish.

Q. I hand you the statement prepared by you in the manner you have described and ask you to read into the record, for use in connection with revised Exhibit 9, the total original expendi-

tures of the Company, or total original cost of the terminals, in each of the three cities, St. Paul, Minneapolis and Duluth.

A. The total figures showing the original cost of the properties in the three cities, up to April 30, 1908, subject to the qualification which I have explained as to their accuracy, is as follows: St. Paul, $2,493,864.44; Minneapolis, $1,215,369.36; Duluth, $817,994.96.

Q. Making a total of—?

A. Making a total, for the three cities, of $4,527,228.76.

Q. And the value placed upon the same properties by you in your testimony is how much?

A. $20,550,340.81.

Q. I call your attention to Ex. 71—Cooper. The object of that exhibit was to test the sufficiency of the method employed by Mr. Morgan in arriving at the values which he has designated the sales-method?

A. That exhibit, together with Ex. 73.

Q. Exhibits 71, 72, 73 and 74 were all intended for that purpose?

A. Yes.

Q. And were prepared by you?

A. Yes, sir.

Q. So that, as I understand it, from your investigations, you insist that the sales-method is not a correct method of arriving at the true or market value of real estate?

A. That is correct. That is to say that I think it is utterly useless, as a method of determining what property is going to cost.

Q. That, undoubtedly, Mr. Cooper, is true, that it is useless as a method of determining what property is going to cost,—and is that the sense in which you have intended we should understand you when you said that this method was wrong?

A. The cost of reproduction—

Q. —that is what I mean.

A. The cost of reproduction is what we were trying to get at; that was our instructions from the State in making up our report, and that has been continued throughout; the cost of reproduction is the result that we have been trying to get at.

Q. So that, in all of the work which you have done, Mr. Cooper, you have assumed that your attention should be constantly directed to the cost of reproduction?

A. Yes, sir.

Q. Now, if what you were endeavoring to arrive at was the market value of the real estate, not exclusively for any one purpose but simply giving it its best value for the purpose for which it was best adapted, to be purchased by a purchaser who was willing to buy but not compelled to buy, and to be purchased from an owner who was willing to sell but not compelled to sell, entirely different methods would have to be used, would they not?

A. Yes.

Q. And an entirely different conclusion would be necessarily arrived at as to the value?

A. I think that is correct; I think that would follow.

Q. In Ex. 71 the only property taken into consideration is the property actually purchased by the Railroad Company during that period?

A. That is correct.

Q. And the aggregate price paid for that property was $33,000-odd?

A. That is correct.

Q. It has been assessed for 27.8 per cent of that amount?

A. That is correct.

Q. This property was purchased either for or by the Northern Pacific Railroad Company?

A. Yes, sir.

Q. It was all property contiguous to the Railroad Company's right-of-way?

A. Yes, sir.

Q. It was purchased under all of the circumstances surrounding the purchase of railroad property as you have described it?

A. That is to say, the exhibit classifies the property into two classes: that which the Company purchased direct and openly, from the owner, the owner knowing that he was dealing with the Company, and that which we purchased under cover and which presumably the owner did not know he was selling to the Railway Company.

Q. Well, is that a fair presumption, Mr. Cooper?

A. Yes, I think so as to all of the property that we have marked here as purchased under cover.

Q. Did you not testify in your direct examination, some time ago, that railroad companies had found it impossible to maintain a cover for any length of time?

A. That is correct, for any length of time. Take the particular case that we speak of, if you will analyze the exhibit, you will observe that a number of the purchases in the neighborhood, being the district bounded by Commercial street, are purchased under cover, and the balance purchased openly, showing the proof of what I say that, for awhile, you can keep yourself concealed. In no two cases, perhaps, will the length of time that you keep concealed be the same.

Q. Part of that Commercial street property was purchased from the Standard Oil Company, wasn't it?

A. No, sir; no, sir.

Q. Well, wasn't it purchased from some oil company?

A. No; the Standard Oil Company property we have not acquired yet; it is a part of the property that we will need to buy some time to use the rest.

Q. It was all purchased by the Northwestern Improvement Company?

A. The Northwestern Improvement Company took the title

in the first instance,—not all of it.

Q. That company has been in active operation in this city for eight or ten years, hasn't it?

A. Well, you mean actively buying real estate?

Q. Actively operating and doing business.

A. Oh, yes; it has been doing business in St. Paul ever since it was organized.

Q. Yes, and it is recognized, and has been generally recognized, as a subsidiary company of the Northern Pacific, hasn't it?

A. Yes.

Q. There have been lawsuits connected with the title to lands?

A. Yes.

Q. And pleadings filed in court showing those facts and everything of that sort?

A. Yes, but the people that we were buying from didn't know they were selling to the Northwestern Improvement Company. I took the title to some of that property in the name of Charles W. Gordon; some of it in the name of Ed. Hersey, some of it in the name of W. F. McFarland, of Burlington, Iowa, and I used other dummies; in fact, Charlie Gordon insisted I keep a register of the stool-pigeons and give him his number. So that, I think I am perfectly correct in saying, that all that property marked as purchased under cover the seller did not know he was selling to the Company; he may have suspected, but he did not know. We took a long time to buy that property, oh, two years, went very slow; we were not in a hurry for it, and we took our time about it. The man who finally suspected us was Henry O'Connor.

Q. He is an Irish saloon-keeper?

A. He is an Irish saloon-keeper, and he sent me word one day that he was onto me and if I wanted to buy that property that I could deal with him but he wouldn't deal with any inter-

mediary at all. So then I threw up my hands, realised that I was discovered, and went and dealt with Mr. O'Connor.

Q. Now, Mr. Cooper, all of the general rules, then, that you have testified to, in which you spent so much time, both wittily and eloquently, explaining to us, on your direct examination, as to the impossibility of a railroad company keeping under cover, as to the excess price which a railroad company inevitably paid, either because they were compelled to acquire property which was used for the purposes of a saloon or for a homestead or for any of the other various purposes that you described, were all absent when it came to the purchase of this property in St. Paul which you have used for the purpose of testing the correctness of Mr. Morgan's exhibit?

A. No, they were all there, in the end; they were not there in the beginning when we began to buy; we kept under cover for a while. That I will frankly admit.

Q. If they were there at any time before the entire purchase was complete, your table and illustration is not an exact one, even as to the property represented on the table?

A. Table? I haven't made any table.

Q. The table Ex. 71.

A. Well, please explain; I don't understand you.

Q. I say, if the conditions which you described upon your direct examination, with reference to the method and difficulties of purchasing railroad property, were present to any extent with regard to any of the properties shown in Ex. 71, the conclusions shown upon that table are not a fair test with reference to the value of the sales-method as applied to the problem of ascertaining the value of real estate?

A. There is no conclusion shown on Ex. 71. It is an absolute statement of just the facts as they appear on the records. On that exhibit I draw no deductions at all, I simply set forth the facts—the property purchased, what it cost us, what the assessed valuation was,—and worked out the arithmetical cal-

culation of the percentage, but I drew no conclusions whatever on that exhibit 71.

Q. Do you claim that any conclusions can be drawn from it?

A. Yes, sir.

Q. You haven't prepared this simply as a matter of amusement, you have prepared it so that some conclusion would be drawn from it, haven't you?

A. Certainly; this case is not a joke to me, there isn't much fun in it. The conclusions, if they may be so called, are shown on Ex. 73, where I make the application of Mr. Morgan's plan to these purchases.

Q. Well, now, Mr. Cooper, don't you know that Mr. Morgan's claim and basis necessarily rests upon the ordinary and normal sales of real estate?

A. No, I don't think it rests on that at all.

Q. Don't you know that, in order for it to be of any value, it must rest upon the ordinary and normal sales of real estate?

A. If I understand Mr. Morgan's plan correctly, it rests upon the assessed valuation, and the purpose of this exhibit and of the next following exhibit is to show the inequalities of the assessment; therefore the weakness of the foundation of his plan.

Q. Now, it rests upon the assessed valuation, as compared with the sales. The assessed valuation is one of the principles or facts to be established; the average of the sales is another; then they are compared with each other. Now, when you took into consideration all of the transfers made during two months in the city of St. Paul, you found that the average was fifty per cent, that the assessed value was fifty per cent of the sales value?

A. Fifty and one-half.

Q. And no attempt was made in that to separate the improvements from the real estate itself?

A. No.

Q. You knew, of course, that the tax commission, Mr. Morgan, the special council committee, and all of those people who have been analyzing and speaking about the sales-method, insist that the assessments upon improvements and assessments upon lands must be separated in order to get the value of the lands exacty?

A. Well, Mr. Morgan's plan of 60 per cent in St. Paul, I don't know how it is based, how much allowance was made for the assessment on improvements.

Q. No.

A. I only know that I took his plan; he says 60 per cent. I am not attempting to do anything but just show the application of Mr. Morgan's plan and let the results speak for themselves.

Q. But if Mr. Morgan's plan included a deduction of the improvements and a ratio of a certain amount which was different from 60 per cent on account of improvements, you have not taken his plan in Ex. 74, you have taken your own plan in which you have combined the improvements and the lands?

A. The improvements are in here.

Q. When you say "here" you mean in Ex. 71?

A. In this list, yes.

Q. I am talking of Ex. 74 now.

A. Mr. Morgan's plan, ignoring the details and how it was worked up, finally resulted in his applying the following method of getting to the value of the Northern Pacific Railway Company in St. Paul: If I understand his plan correctly,—

Q. Well, that is rather important, whether you understand it or not.

A. —he determined that the ratio of the assessed value to the sales-price was 60 to 100. How he arrived at that it is not material. That is how he arrived at it, that is how he applied it. Then by taking the assessed value of the property and

applying that increase he determined the sales-value. In order to get at the assessed value of our property, (which is not assessed) he divided St. Paul into districts, ascertained the assessed value of abutting property or property in the vicinity of ours, determined what the assessed value of our property would be if it were assessed, then he took and added his percentage to bring it up to its sales-value. In that way he produced his sales-value. He then worked out a calculation by which he reached the conclusion that a railway company in St. Paul paid seventy-five per cent more than the sales-value for property that it purchased. He added the 75 per cent, and in that way produced his figures as to the cost of reproducing the Northern Pacific property in St. Paul. That is my understanding of his method. Now, all that I have done, I have simply said, "Now, we will take and apply Mr. Morgan's plan to the property which the Northern Pacific has actually purchased and see what the result is." Exhibits 71, 72, 73 and 74 are for that purpose.

Q. Well, now, have you applied his plan in any one of those exhibits?

A. I certainly have tried to.

Q. All right, now, let us see.

A. In Ex. 73—

Q. No, let us come back again to Ex. 71. We had got to Ex. 74, but since your explanation we will come back. Mr. Morgan stated, in the first place, that, upon the average, he believed a railroad company paid 175 per cent of the market value for real estate in the city of St. Paul; is that true?

A. That is my understanding.

Q. Now, when he said that they paid that, upon the average, that, of necessity, meant that some property was gotten at a less cost and some property was gotten at a greater cost, did it not?

A. Yes.

Q. But when you came to test the value of the sales-method,

as applied to the property purchased by the Railway Company as shown in Ex. 71, you applied Mr. Morgan's theory of 175 per cent to only a portion of that property, and that portion of the property which you say you bought under cover, (and therefore, presumably, got at less than the average) you did not apply it to; is that true?

A. That is correct.

Q. In that respect—

A. I am not going to let my answer rest—

Mr. How: I think he is justified in completing his answer, and to qualify it, if he sees fit.

Q. Oh, yes, go on.

A. That is true, that I did not apply, I did not add the 75 per cent (being the excess which he says a railway company has to pay,) to the property which the Railroad Company purchased under cover. Obviously it should not be applied there. That is an excess price that a railroad company has to pay if it is known that a railroad company is purchasing; but if a railroad company is not known to be purchasing, presumably it is purchasing at normal value; therefore I did not apply the 75 per cent.

Q. Where a railroad company is known to be purchasing, it sometimes pays four or five times the market value, doesn't it?

A. Yes, sir.

Q. Didn't you understand that that multiple of 175, as used by Mr. Morgan, was an average?

A. Certainly, I understand his whole plan to be an average.

Q. And if you want to use his plan and maintain his average, mustn't you include all property and find out whether it is a proper average on not?

A. Well, I have included all the property that the Company purchased.

Q. You haven't included all the property which the Company purchased in your final statement as to what the ratio of the

market value was to the assessed valuation—

A. I insist—

Q. —upon Mr. Morgan's principle?

A. I insist that I had a perfect right, in the application of Mr. Morgan's plan, when I came to apply it to the property that was purchased under cover, (not known to be purchased by the Railroad Company,) not to add the 75 per cent increased price which he says a railroad company has to pay.

Q. You had a perfect right to present any table you like, Mr. Cooper, but I dispute your right to present a table prepared upon one plan and say that is Mr. Morgan's plan when you concede now it isn't.

A. I don't concede that it is not; I insist upon it that that is a fair application of Mr. Morgan's plan. I certainly tried to apply that plan fairly.

Q. Now, Mr. Morgan had divided the property of the Northern Pacific into divisions, had he?

A. In his report?

Q. Yes, and in his testimony. You saw that it was divided into additions in making his valuation, it was divided into large divisions?

Mr. How: Districts.

Q. Or districts?

A. In his report to the State, yes.

Q. Mr. Morgan, in applying the sales-method, for the purpose of ascertaining the value of the Northern Pacific property, made maps in which the property of the Northern Pacific was divided into districts including a large amount of land not held by the Railroad Company and never purchased by the Railroad Company, and from those districts took the sales of property occurring in those districts, no matter whom it was sold to, did he not?

A. I really don't know whether he did that or not; it is not clear to me that that was his plan. I supposed that his division

into districts was for the purpose of getting the assessed value of property of similar value to that of the Company's and in that way determine the assessed valuation for the Company's property; that is, what it would be assessed at, if assessed.

Q. You have confined your comparison here to property purchased by the Northern Pacific?

A. That is correct.

Q. Now, if Mr. Morgan's plan, or Mr. Morgan's method, as a matter of fact, depends upon general conditions, normal sales, sales to all classes of persons, and an aggregate of sales which represents the general movement in real estate for general and all purposes, your Ex. 71 is not according to that plan?

A. My exhibit 71 only covers the particular property that is described in it. I have not attempted to find a case that Mr. Morgan's plan would fit. Doubtless there are some. My purpose is to show that it is a plan that will not generally apply because of the inequality of the foundation (the assessments) on which it rests.

Q. What your Ex. 71 shows is that the ratio between the purchase price of this property and its assessed valuation was not as 100 to 60, was it not?

A. That is one of the things that the exhibit shows.

Q. Now, what has been said about Ex. 71, applies equally to Ex. 72?

A. Yes, that is correct.

Q. And Ex. 73 is a mere summary and analysis of Exs. 71 and 72?

A. Ex. 73 is an application of the plan with the figures shown in Exs. 71 and 72.

Q. Now, when we come to Ex. 74, where all the sales for two months were taken, we find that the ratio is 52 to 100, is that true?

A. The average is 50½ on the entire 411 transfers.

Q. And in that you have not segregated the improvements from the land itself?

A. No, no, I made no effort.

Q. And, so far as you know, if you did that, you might arrive exactly at the ratio used by Mr. Morgan of 60 to 100?

A. I might arrive at that average.

Q. Yes.

A. It would not reconcile those differences, those inequalities in the assessments, running from 5 to 370 (I think it was) per cent.

Q. But you might arrive at the same average?

A. Possibly; I couldn't tell what that result would be.

Q. Do you know the total acreage contained in the property shown in Ex. 71?

A. No, I haven't those figures with me.

Q. The number of sales was 411 in Ex. 74?

A. Yes.

Q. You don't know the acreage in those sales, either?

A. No, I didn't attempt to compute that in any way.

Q. Now, Mr. Cooper, you have paid a good deal of attention to what has been described here as the sales-method, have you not, for arriving at the value of real estate?

A. I have given some attention to it, yes.

Q. Of course, you realize that taxes are one of the things which are considered permanent and sure?

A. I understand it is classified with death.

Q. And, consequently, year by year, month by month, the making of assessments and the collection of taxes goes on?

A. Yes, sir.

Q. And, while there always are gross inequalities to be found, still it is inevitable, is it not, that a general ratio between the selling price of real estate and the assessment for taxation will gradually be established?

A. If you mean by that to take a city or a county or a state,

of course there will be some relation of the assessed value to the sales-price, but when you come to try to get at what a piece of property is going to cost you and you try to secure any information from the assessment of it, I think you are wasting time; we never think of looking at the assessment.

Q. So that, if the amount of property which is taken into consideration, both for the purpose of ascertaining the assessment and for the purpose of ascertaining the selling price, is large enough to give the true average, you can arrive at it in that way?

Mr. How: What do you mean, the value of any particular tract? Arrive at what?

Mr. O'BRIEN: The average.

A. You can arrive at an average, yes, but what value the average is to you is another question.

Q. If you had before you the total assessment of real estate, without improvements, in the county of Ramsey for the year 1908, and the total sales of real estate in the county of Ramsey for the past five years, and the true selling price of all of the property so sold, it would be a mere matter of mathematical computation to determine what the ratio was per acre, for instance, between the assessed value of property in the county of Ramsey and the average selling price for the past five years?

A. That, I think, is correct.

Q. And whenever you had before you a sufficient number of such assessments, as well as a sufficient number of such sales, to give you the true average, you would, by a similar mathematical computation, be able to arrive exactly at the true average?

A. I would never arrive at an average that I would consider true; I would arrive at an average, but I wouldn't consider my average of any value.

Q. Mr. Cooper, I have said, whenever you had a sufficient number of such assessments, as well as a sufficient number of such sales, to give you the true average, by a mathematical

computation you would arrive at it with the same exactness you would in the first place, would you not?

A. I don't think any number of assessments and any number of sales would ever give an average that can be called a true average. You would get an average. You would produce a figure that would show the relation of these two totals one to the other, and it would be an average.

Q. You just said if you had all of them—

A. All of what?

Q. All of the assessments and all of the sales—you could find what the average would be.

A. Yes, Mr. O'Brien,—we are misunderstanding each other. You can always produce an average. What I object to is assenting to calling it a true average or a figure that would be of any value for any purpose. I don't want to assent to that. You could produce an average, that is true.

Q. You could ascertain the average?

A. Yes.

Q. And what I asked you was, whether or not it wasn't possible that you could find and arrive at what was the average without taking into consideration all of the sales and all of the assessments.

A. You can produce an average by taking two figures and adding them together and dividing them; you have got the average of the two, so that you can always produce an average.

Q. Well, maybe we had better go over that again. If you had all of the sales and all of the assessments in the county of Ramsey, you could, by a mathematical computation, ascertain the ratio which existed between the total sales and the total assessments?

A. That is correct.

Mr. How: That is what he has done in Ex. 74.

Q. Whenever you have taken into consideration enough sales and enough assessments to give you the true average

the same result as suggested in the last question will be arrived at by taking into consideration the limited number indicated in this question; is that true?

A. If you do your arithmetical calculation correctly, you must of course produce a true average; that is to say, in the sense that the figures are correct.

Q. Consequently, if all of the property, real estate of Ramsey county was to be purchased, this average, arrived at in that way, would give the average true selling price for the past five years?

A. I don't think so.

Q. If we were endeavoring to ascertain what was the average true selling price for the past five years and had found the average in the way that I have indicated, would that not be the true average selling price, whether it was the true market value or not?

A. If I understand correctly, what you are trying to get at, I don't think so. I think that you have got to always go back and consider whether the assessment is uniform as to the different classes of property; that a very high-value class of property may be assessed at a low percentage, and, vice versa, as to cheap property. You get your figures all thrown out.

Q. Well, if you take it all into consideration, Mr. Cooper, does it make any difference, when all the property is taken into consideration? It isn't a question of average, it is a question of fact, isn't it? You take all of the assessed value and all of the property, it isn't a question of the average, it is a question of fact.

A. You have got to have two figures there to produce this; you can take all of the assessments, but the other side of it is all of the sales,—well, all of the property hasn't been sold.

Q. Well, I am assuming that all of the property has been sold. What I am trying to get you to say is that if you have all of the property, all of the assessments, and a sale-price for

all of the property, it is neither a question of average nor is it a question of theory or anything else, it is a mathematical fact that the average selling price bears a certain relation to the average assessment.

The MASTER: Your assessment, as I understand, is limited to the property sold; that is, you take property sold and you find the assessed value of that property?

Mr. O'BRIEN: Of course, that is the practical way it must be worked out, but I am asking Mr. Cooper a hypothetical question. I am trying to get Mr. Cooper to say that if we had all of the assessments and a sale-price for all of the property, it would not be a question of theory, it would be a mathematical fact.

The MASTER: Yes, but is the assessment that he speaks of here always with reference only to property sold?

Mr. O'BRIEN: Well, I am speaking of a case where all of the property in the county was sold and all of the property in the county was assessed.

The MASTER: Then, of course,—

Mr. O'BRIEN: It is a mere mathematical fact.

The MASTER: I understand that, and then any previous question you have been asking has been upon that same theory?

Mr. O'BRIEN: Yes, sir.

The MASTER: In asking this question now, your assessment has reference only to property sold, in each instance, and I didn't know but possibly the witness might understand that your question was directed to that.

A. If all of the property in Ramsey county was sold and you take the total consideration for it, and then take the assessed valuation on that same property, you would, of course, produce a figure which would be the relation that the assessed valuation bore to the selling price.

Mr. HOW: On the average?

WITNESS: On the average.

The MASTER: That would be a true average?

Mr. O'BRIEN: No, it wouldn't be on the total, it would be the total relation which one bore to the other.

Q. Now, when you take into consideration either sales or assessments less than the total, the smaller the number which is taken into consideration the more likelihood there is that you will not arrive at the true average; isn't that true?

A. That is correct.

Q. It then becomes a mere matter of chance whether you arrive at the true ratio or not, isn't that true?

A. That is correct.

Q. So that, if one wanted to ascertain the average true selling price of property in the city of St. Paul or county of Ramsey by the sales-method, the only element of doubt with regard to the correctness of the conclusion is as to whether or not the base is sufficiently large and the computation correctly made?

A. I don't assent to that.

Q. If you will consider the problem from the standpoint of the true average selling price of the land and eliminate from your mind market value or present value or railroad value, but simply consider the true selling price, won't you assent to my proposition?

A. I won't assent to any proposition that attempts to fix the cost of buying a piece of land based on any method which takes into account its assessed value. I want to keep myself perfectly clear on that, that I think it is foolish to attempt to make any calculation on that basis.

Q. Well, can you show where my proposition in that respect is wrong?

A. I am not going to try.

Q. Do you think you could if you did try?

A. I don't know.

Q. Now, in endeavoring to disprove Mr. Morgan's testimony, you have constantly cited special instances, have you not, in your tables?

A. I have applied his plan to all of the property purchased by the Northern Pacific in St. Paul and in Minneapolis. Not to special pieces of that property but to all of the property that it purchased in the last four years while I have been Land Commissioner, I didn't attempt to pick out special pieces at all.

Q. No, I understand that, but what I mean is you have constantly reduced the base by taking only the property purchased in the city of St. Paul, for instance, in the past four years. Now, the property of the Northern Pacific in the city of St. Paul represents something over 600 acres, does it not?

A. I don't remember the acreage; perhaps that is about right.

Q. This test which you have applied in Ex. 71 covers very few acres, does it not?

A. I couldn't say what the acreage is.

Q. Ten acres all together?

A. I couldn't say.

Q. Now, in some instances—

A. A good deal more than ten acres, however, because there are fifty-six acres out at Como I just happen to remember that there are fifty-six acres in that Como piece, but just what the acreage is of the rest I couldn't say.

Recess until 2 P. M.

AFTERNOON SESSION.

Q. Again calling your attention to Exhibits 71, 72, 73 and 74,—taking Ex. 71 we find that, in some instances, for instance, in the Jacob Schmidt Brewing Company property, the assessed value of the property is only 1.9 per cent of the purchase price; that is true, is it not?

A. That is correct.

Q. And in the case of the group of properties purchased from the Tri-state Land Company we find the assessed value to have been 87.7 per cent of the purchase price?

A. That is correct.

Q. When you take all of the transfers shown in Ex. 71 you find that the assessed value was 27.8 per cent of the purchase price?

A. That is correct.

Q. How many purchases?

A. On Ex. 71 there were 23 purchases.

Q. When you had Ex. 74 prepared by the abstract company, in which there were 411 purchases or transfers, you found the assessed value of property fifty per cent of the purchase price?

A. The average was 50½.

Q. Don't you think that, if you went on and extended your investigations so as to cover the 600 acres of land owned by the Northern Pacific and extending almost to every part of the city, containing property and consisting of property contiguous to property of all classes and of all values, you might just about have reached the same point that Mr. Morgan did when he took his 10,000 transfers into consideration and found that the average was 60 per cent as applied to that property?

A. I couldn't make any such statement. I couldn't prepare any such statement for the Northern Pacific property, because it is not assessed, so that it would be impossible for me to prepare a statement covering the Northern Pacific property.

Q. But you could have ascertained whether that was a fair ratio to apply to the property contiguous to the Northern Pacific property which was assessed and which had been sold from time to time?

A. I could have worked out a statement of the assessed value of the contiguous property had I thought it was of any value or importance. I did not. I haven't any idea what result I would have found.

Q. Are you prepared to say, either from your exhibits or from your investigation of this matter, that the average ratio between the assessed value and the selling price for the past five years of property contiguous to the Northern Pacific prop-

erty. in the city of St. Paul, is not 60 to 100?

A. I have no information whatever of the subject to base any opinion.

Q. Mr. Morgan testified in this case as I remember, that he divided the property of the Northern Pacific into something more than thirty groups, placing each group or tract within a section, bounded by him as described in his testimony; that in something like ten to fifteen of the sections, he found no sales of property within the boundary of the sections; that in all of the other sections he did find sales of contiguous property; that he established the ratio which the assessed value of property within the sections bore to the average selling price for the past five years; he also claimed to have established, in the method described by him, that the average ratio which the assessed value of property throughout the county of Ramsey (or, more properly speaking, the city of St. Paul,) bore to the average selling price for the past five years was 60 to 100; adopting that as the ratio for all of the Northern Pacific property he established its true or selling value; he then checked that by ascertaining what the result would be if he established the value of each tract in each section by the particular ratio found in that section; and, having thus ascertained the entire value, the difference amounted to something less than two per cent. I now ask you whether there is anything in your tables, or anything in your researches, which disproves that statement, in your judgment.

A. I have only tested Mr. Morgan's plan by the purchases made by the Northern Pacific in St. Paul and Minneapolis as shown in Exhibits 71 and 72, and certainly they do not establish the accuracy of his method. I have not attempted to test it in any other way excepting, further, to get that list of all the transfers in St. Paul in the last two months, to show the inequalities of the assessment.

Q. There never was any dispute in this case as to inequality

occurring in the assessment, was there?

A. Well, the inequalities of the assessment is the principal item that defeats Mr. Morgan's plan, as it occurs to me.

Q. It is because of the inequality in the assessments?

A. That is one important item which makes his plan imperfect.

Q. Now, if the base were large enough, or the number of sales and number of assessments taken into consideration were large enough, there would be no difficulty in establishing the average selling price of contiguous property, would there, and what ratio it bore to the assessed value?

A. I can't figure out to my satisfaction any way, no matter how large the base or how small it may be, how Mr. Morgan's method is of any value in determining what it is going to cost to buy any particular piece of property in the city of St. Paul.

Q. Now, I think that is a very fair statement, Mr. Cooper, and, if I understand you, by that you mean this: that the problem we have is not to ascertain the true selling price or true market value of property at this time, but the problem we have is to ascertain what the Northern Pacific Railway Company would be compelled to pay if it were necessary for it to go upon the market at this time and purchase this particular property; am I right?

A. Yes.

Q. So that, in the last analysis, except as a matter for forming an ultimate judgment, you entirely disregard the normal selling price of lands in giving your testimony, don't you?

A. Not at all, not at all. I entirely disregard the assessed value.

Q. Do you accept the statement that the market value of the railroad lands is the same as the market value of the contiguous property?

A. No, I do not. In my testimony I testified that by market

value I included the price that the Railroad Company would have to pay for the land without reference to the severance damage,—the cost of purchasing the land and the amount they would have to pay for improvements.

Q. And, in your judgment, the amount which the Railroad Company would have to pay for land, exclusive of severance damage, exclusive of improvements useless to the Railroad Company, and exclusive of general expenses, is still higher than the market value?

A. Yes, sir; necessarily so by reason of the compulsion feature that comes in there—that we must have the property.

Q. So that, all through your testimony and all through your evidence, that theory has been extended, has it not?

A. Yes, sir.

Q. That belief on your part?

A. Yes, sir.

Q. So that, if we take a section of the Northern Pacific road between here and Minneapolis, for instance, where the property was available for ordinary cheap residences or garden lots, and where the road was about at grade, you would not concede that, in this investigation, the value of the railroad property could be determined by the value of the contiguous property?

A. Not determined accurately. It would be one of the features that we would consider. If I was estimating what it would cost to buy the right-of-way for a line, I would of course, take into consideration the character of the country and its value for agricultural purposes. That is one of the features that I take into consideration in making up my estimate.

Q. Therefore, your judgment as to the value of the railroad property is always that it is higher than the value of contiguous property?

A. Yes, yes, that is true.

Q. And your claim is that to that should be added these

other elements of cost which you have described?

A. Yes, sir.

Q. Now, of course it is true, is it not, that all of this property cost very much less than either the value placed upon it by Mr. Morgan or the value placed upon it by you?

A. That is hardly correct, Mr. O'Brien. There is some of the property that was purchased in St. Paul (purchased within a few years) that is not put in at a very much higher price than what it cost. Well, generally speaking, you are correct, as the figures that I testified to this morning, showing the original cost and the valuation now, will show, as a whole; but there are isolated cases where there isn't much difference in the cost and the value.

Q. Well, taking the entire property in the cities of St. Paul, Minneapolis and Duluth, they cost approximately twenty-five per cent of the values placed upon it by you?

A. Approximately 25 per cent.

Q. And the property outside of those terminals cost a very much smaller percentage?

A. I have never looked into the first cost outside of the terminals, but I can answer, of course, yes, that it cost less; now, just how much less I could not say.

Q. And the terminals that I have mentioned in the three cities, cost what percentage of the value placed upon them by Mr. Morgan? Please take Mr. Morgan's market value, $9,498,000; it is approximately 50 per cent?

A. 48, I make it.

Q. That is, the original cost was 48 per cent of the market value as placed upon it by Mr. Morgan?

A. That is right.

Q. Now, that property has, since its purchase, been exempt from taxation?

Mr. BUTLER: Well, it paid on gross earnings in lieu.

Q. It paid on gross earnings in lieu, of course; exempt from

taxation because of the fact that the railroad companies paid a gross-earnings tax or lieu tax?

A. Well, not exactly so, Mr. O'Brien. There doubtless are pieces in there that were purchased, for instance, like the recent purchases in St. Paul, the title taken in the name of no company, and there may have been a tax paid on it during that interval before it was turned over.

Q. But with that exception?

A. With that exception the property is exempt from taxation.

Q. The railroad structure upon those lands has been maintained from operating expenses?

A. Well, I suppose that is correct.

Q. After first construction. Such improvements as have taken place in the lands by reason of draining, filling in, matters of that sort, aside from original construction, have all been paid out of operating expenses, have they not?

A. We make some of our improvements and charge it to capital account. Now, just to what extent any work done on these properties was charged to the operating expenses or to capital account I really, of course, could not state.

Q. Now, in the meantime, the contiguous property has been gradually occupied, has it not, since 1870?

A. Yes, some of it.

Q. Warehouses have been built upon it?

A. Yes.

Q. Residences built upon it, farms have been opened up upon it; is that true?

A. Yes, that is true; practically all of the contiguous property to our terminal properties in St. Paul and Minneapolis are improved in one way and another.

Q. If it were not for the harassing difficulties surrounding a railroad company in acquiring properties, you see no reason why the railroad property itself should have increased in value

more than the contiguous property, do you?

A. Well, railroad property, of course, has a special value as railroad property that other property equally well located for other purposes (agricultural or business or residence purposes) may not have; a piece of railroad property may occupy a strategic position and have a special value as railroad property apart from its value for any other purpose, so that that is an element that, in answering your question, has to be considered. When there were a number of entrances into St. Paul open for railroads to occupy, a particular entrance did not have the value that it had later when a number of railroads came and occupied them all. Then, by reason of the fact that a new railroad coming in would have to stand a much higher expense to get a line, perhaps not get such a good line, the earlier positions of low grades and easy construction enhanced in value and became much more valuable.

Q. So that, for that reason, you insist that, even if the test were to be the present value of the property the contiguous property would not be a proper basis for arriving at such present value?

A. It would not be a complete basis.

Q. But I don't understand you to say that your researches have convinced you that Mr. Morgan did not correctly arrive at the true value of contiguous property?

A. I don't think Mr. Morgan's plan will determine the value of any piece of property, except by mere chance, because of the fundamental weakness, to-wit, the inequalities in the assessment.

Q. But if the amount of property taken into consideration by him was sufficient as a basis, then his method would correctly determine the value of contiguous property, would it not?

A. I don't think so.

Q. So that you do not even concede that the system is

sufficient for the establishment of the value of the contiguous property?

A. I don't think it is, but I wish to qualify my answer by saying that I have not studied the application of Mr. Morgan's plan to anything but the particular question that confronts me. It is possible that it has a value for some purposes; I don't say that it has not; I have only taken it up and considered it in relation to the question that I am interested in this particular case.

Q. Mr. Morgan's plan was first to ascertain the value of contiguous property, and you have not examined into the matter for the purpose of ascertaining whether it did lead him to the true conclusion, as to contiguous property or not, have you?

A. No, I have not; I made up my mind, when I saw the inequalities in the assessment, that his plan was of no value whatever in determining anything that I was interested in in this case, and I pursued it no further as to whether it would apply to something else or not.

Q. Now, one thing further, with regard to your own testimony and your own idea of the value, because personally I have the very highest respect for them, if we can ascertain how you arrive at them. You assume, for the purpose of arriving at the value of this property, that it would be necessary for the Northern Pacific to purchase that property at this time?

A. That is correct.

Q. And that, in so purchasing it, the Northern Pacific would necessarily pay considerably more than the real market value of the property, and, in addition to that, would pay a severance damage, and, in addition to that, would be at a considerable general expense in securing the property?

A. "The real market value of the property,"—of course, if you take into account the fact that some of the property has a special and peculiar value for railway purposes other than

what it might have for residence, business or agricultural purposes, then my answer to the question is yes.

Q. Well, you said, in answer to a question some time ago, that all of the railroad property had a greater value than contiguous property because it was used for railroad purposes.

Mr. How: I don't think he said quite that or that his answer was open to that construction.

A. We are continually (at least I am continually) having to keep in mind these words "values," which, to some extent, differ from the basis of my estimate, which is the cost of reproduction; we have to pay, as I have said, and will repeat again,—a railroad company, in purchasing property, has to pay a higher price than other people, not for every particular tract but for a great deal of what they buy, because of the fact that they have to buy that particular tract; therefore, a new figure of value, if you choose to call it value, is established there, and when we talk of value we are apt to think all the time of its value for other purposes than railroad; but, when the railroad company comes to buy it, there is a use to which the property can be put, manifested by the fact that that railroad company wants to buy it, and immedintely this new use or value is added to its price, and the railroad company must pay for it.

Q. Well, let us see if we can reduce this to a concrete example: In the three terminals, St. Paul, Minneapolis and Duluth, you claim a value of real estate amounting to twenty million dollars, in round numbers; is that true?

A. That is my testimony in this case.

Q. That represents an investment of not to exceed five million dollars, in round numbers?

A. Original investment, yes.

Q. That property has been maintained and held, since its purchase, practically without any additional or new investment?

A. In the land?

Q. In the land.

A. In the land, yes.

Mr. BUTLER: It doesn't cover improvements.

Q. No, of course not; I am speaking of the ground itself.

A. Yes.

Q. And this value applies only to the land itself?

A. That is right.

Q. In the meantime, surrounding property has been made available, been improved and has increased in value?

A. Generally speaking, I think that must be so.

Q. Your claim is now that, for the purpose of ascertaining the value of the Northern Pacific property comprising those terminals—the land, you can neither take the original investment, nor the value of that land as determined by the value of contiguous land, but that, for the purpose of determining its value, so that what is a proper return may be found, it is necessary to proceed upon the theory that the Company is now compelled to purchase that land, at this time, under all of the circumstances, subject to all of the extra and additional expense which a railroad company is at at the time it makes a purchase of land; is that a true statement of your position?

A. That is correct.

Q. And you have not attempted here to base your estimate of the value of this land, either upon the original investment, upon the actual cost to the Company, upon the basis of average increase in contiguous land, or upon any other theory than the one I have described and which you referred to as the cost of reproduction?

A. That is right.

Q. And it is true, Mr. Cooper, that if you were to determine the value of the land by any of these other methods which I have suggested, the inevitable result would be that the value of the land as found by you would be much less than the value which you have given?

Mr. BUTLER: The reproduction cost, you mean?

Mr. O'BRIEN: Or the reproduction cost.

A. I have not attempted to figure it out, of course, on any other basis except the one that has been used as I have explained in this case. I think that the result would be as you say, that it would be lower.

Q. Now, just one question: in one of the maps or tables produced here, which is not in evidence, you give certain results with respect to the purchase of land in the village of Hawley; what, in your judgment, is the average value of land per acre in the village of Hawley?

A. My judgment, at the time I made up my report to the State, was $1,200 per acre. At that time we had not completed our purchases for the new line to Hawley. If I were making it up to-day, because of the experience that the new line of road cost us, $2,018 per acre, I would, of course, increase it.

Q. I am not asking you what the value of your right-of-way is or what it would cost you to obtain the right-of-way, but I am asking you your best judgment as to what is the average price per acre of land in the village of Hawley.

A. I couldn't answer that question excepting in the way that I have answered it.

Q. Well, have you any judgment as to the average price per acre of land in the village of Hawley?

A. I have no judgment other than what I have stated.

Mr. HOW: Do you know what the limits of the village of Hawley are?

WITNESS: As shown on that map there.

Mr. HOW: That doesn't show all sides of it, does it?

WITNESS: Yes, it shows all sides of it.

Q. It is a small village, is it not?

A. Yes, but its corporate limits are immense; it is a mile and a half north and south, and a mile east and west.

Q. The platted portion of the village is about a quarter of a mile each way?

A. There are about 160 acres platted, according to this map, which probably is right in that respect.

Q. That would be half a mile each way; the platted portion is about half a mile square?

A. The platted portion is about half a mile square, yes.

Q. Now, have you any judgment as to the value of land per acre in that village?

A. No, I have not. The information that I had, at the time that I made up my report for the State, I haven't with me and I can't recall just what that information was.

Q. Was it in Hawley that you hit the saloon that you told us about when giving your direct testimony?

A. No, no; that was in Bonner; Bonner, Mont.,—hit two of them.

Q. Was it on this Lake Park extension that you ran into the homestead?

A. No; we had, I think, three condemnation cases on this line-change, and there were no particular incidents connected with any of them, and my recollection is that we fared pretty well in all the condemnations, the awards were about what we were willing to pay. I am going on my recollection somewhat in this. There weren't any very bad cases in Minnesota in this line-change.

Q. Have you any judgment as to the value of farm lands in Clay county, for a distance of say one mile on each side of your right-of-way?

A. No; my principal, (in fact, only,) experience in Clay county has been the actual purchases that we have made, to which I have testified, and the purchases at Dilworth.

Q. Now, all of that right-of-way through Clay county and through Becker county, and practically everywhere in the state,

is a part of the right-of-way originally granted to the Northern Pacific Road, is it not?

A. The old main line, as you might call it, from the Head of the Lakes to Moorhead, is, all of it, under the charter of July 2, 1864, and practically all of it is charter right-of-way granted us. That is the main line only, not any branches.

Q. This very property, through the village of Hawley and through Lake Park, is a part of that original granted right-of-way?

A. That is right; that is right.

Mr. BUTLER: The new line?

Mr. O'BRIEN: No, no; I don't mean the new line; I mean the 400-foot right-of-way, shown in yellow on the plat.

WITNESS: Yes.

Q. And that is practically true of all of the right-of-way through the rural districts?

A. Yes, the bulk of our right-of-way between Moorhead and the eastern boundary line of the state, on the main line, is built under the charter and we have the charter grant.

Q. Now, if it should appear that what you have given as the reproduction cost of that right-of-way, granted to the Road as I have described, was greatly in excess of the value of the lands for a distance of a mile upon each side of the right-of-way, would that change your opinion any as to the proper value to be taken into consideration in this case?

A. In other words, if you prove to me that I am wrong, will I admit it? Yes. That is practically what you are saying to me.

Last question read.

Mr. BUTLER: What is meant by the last phrase of that, Mr. O'Brien?

Mr. O'BRIEN: And which you have, as I understand it, designated as the reproduction cost.

Mr. HOW: Would the conditions of the land within the

mile and a half have anything to do with it, is that a part of the question?

Question re-read.

A. In my reproduction cost value for railway purposes are included the elements of severance damage, improvements, and all of the other items that we have discussed which enter into the cost, and which both the State and the Company have allowed by using the multiplier of three; therefore, you cannot compare that with what may be the selling price of land contiguous to this right-of-way.

Q. So that the value of contiguous property is not a fair criterion as to the value of the railroad property?

A. No, not unless you take into account these items that I speak of. The value of a strip of land used for right-of-way is, of course, very much higher per acre than the value of the farm which may be 160 acres abutting on it.

Q. If it should appear that the market value of the farm lands contiguous to the right-of-way of the Northern Pacific were very much less than the market value which you have placed upon the right-of-way, would it have any effect upon your judgment as to the correctness of your estimate?

A. If there was much difference, yes.

Q. Well, then,—

A. Talking of the market value now in the sense that it is used in the report.

Q. Well, let us say in the sense that it is ordinarily used; do you consider that the right-of-way has a higher market value than any farms contiguous to it?

A. Oh, yes.

Q. Well, that is what I want to know.

A. I have said that; I said that, just a few minutes ago. I said that in the market value I included the element of increased price which a railway company has to pay in the item of market value, which makes my market value item necessari-

y higher than the value per acre of the abutting property.

Q. Then the railway value has included what you have spoken of as severance damage?

A. Severance damage, improvements, cost of ditches—

Q. Improvements useless to the railway company?

A. Cost of bridging the property and—

Q. Cost of bridging the property?

A. And all the various items, such as those I have enumerated today in connection with the right-of-way for the line changes in Minnesota; items of that kind, where really no land was acquired, we were simply paying damages.

Q. Now, is that true as to all of your statements of land values?

A. That is true.

Q. So that, in every case, what you call the market value is the value of contiguous or similarly situated property, with the additional amount which a railroad company is ordinarily compelled to pay?

A. That is right.

Q. And what you have designated in your report and in your testimony as right-of-way value is your definition of the market value of railroad property with the additional element of severance damage, cost of improvements useless to the railroad company, and general expenses of acquisition?

A. And such items as we read this morning, damage to the property not taken at all, changing channels and things of that kind.

Q. So that in no instance have you given the market value of the property upon the basis of the market value of general property surrounding it or the market value of that property purchased by one who was not acting on behalf of a railroad company?

A. That is right.

Q. And if you were to give the market value on the ordi-

nary basis, leaving out those elements of increased cost, your market value would be much smaller?

A. It would be smaller, yes.

Q. Have you doubled the market value because of this difficulty in purchasing at a fair value experienced by railroad companies?

A. No, no.

Q. By what per cent have you increased it?

A. There was no regular per cent used.

Q. Would you think, on an average, that you increased it a hundred per cent?

A. Oh, no, no.

Q. Seventy-five per cent?

A. No, I don't think as much as that.

Q. Between fifty and seventy-five per cent, possibly?

A. I doubt if it was as high as fifty per cent.

Q. But it wasn't done by you upon any definite system?

A. No, no, because the problem I had confronting me in making up my report was, what would it cost a company to acquire this right-of-way; and, in doing that, of course I had all sources of information, what the character of the country was generally and the prices at which property was held and its value for agricultural and business purposes; but I used no fixed percentage to add on, to arrive at what the Railroad Company would have to pay for it.

Q. But it would probably run in the neighborhood of fifty per cent, I suppose, would it?

A. Well, I don't think it would be as much as fifty; I would not attempt to say just how much it would be, but I don't think it was as much as fifty.

The MASTER: Do I understand you made each particular tract a matter of consideration in determining what that addition should be?

WITNESS: No, sir, no.

The MASTER: You say you didn't have any fixed per cent, any established relation; how did you get at it without such established relation, in the absence of an examination of the property?

WITNESS: Well, we did this: in the country districts, I sent a man out to ascertain what the property contiguous to the line of the road was being bought and sold for,—and I am talking now of the country right-of-way other than the towns, cities and villages—and from my familiarity with the road and the country along the road I could check this, in a measure, myself as to what the agricultural value of the district was, in a general way, without stopping to say that across the southeast quarter of the southeast quarter of so-and-so it was worth so much; as between Little Falls and Brainerd, I know what the country is like, through there, and its agricultural development and character of the soil, and I sized up just about what it would likely cost us to put that right-of-way through if we were doing it today, knowing that we always pay a higher price than the average price at which property is held because we have to buy.

Q. Now, as a rule, particularly in the northern part of the state, you have estimated the value of the right-of-way through agricultural lands at about $50 an acre, haven't you?

A. No, only in the good districts, the very best; I think $50 an acre was the highest that I put on anything.

Q. I am talking of the market value.

A. I am talking of the market value, yes.

Q. I guess you got a little higher than that in Chisago county. I am speaking of the western part of the state.

A. Oh, I thought you said the northern. Yes, Chisago county,—that is along the line of the Taylors Falls branch.

Q. Yes, I know, but I am speaking of up in the northern part of the state.

A. You just asked me about Chisago.

Q. You said that was the highest, and I told you that it wasn't the highest; you are mistaken in that. Now, we will take this property which was illustrated by one of your tables here that is not an exhibit—Dilworth; that property was put in by you as having a market value of $50 per acre?

A. Yes.

Q. You didn't consider that the value of ordinary farm lands along there, for farming purposes or anything of that sort? it wasn't the general market value of property in that vicinity, in other words?

A. At Dilworth?

Q. Yes.

A. Why, I couldn't buy it at $50.

Q. I say you didn't consider that the market value of property in that vicinity, did you?

A. Oh, yes; Dilworth—that is one of the finest agricultural districts you have in the state of Minnesota, right around Dilworth there. That is where they raise all the fine potatoes. You see we had to pay for that land as I have explained there, we had to pay for it $85, I think it averages out.

Q. Did you consider that you were putting in at $50 an acre the average value of land in that vicinity, or did you consider that you were putting in the market value of your railroad property upon the theory you have already described?

A. I considered I was putting in what it would cost us to buy it.

Q. What it would cost you to buy it?

A. Yes.

Q. As your market value?

A. As our market value. Not the value for railroad purposes. Without the multiplier.

Q. Now, that value which you considered the value at which you could buy it, was higher than you considered the ordinary market value?

A. Yes.

Q. And that value you multiplied by 3?

A. No, not at Dilworth. I didn't use the multiplier of 3,—let me see.

Q. No, you didn't at Dilworth.

A. No, I didn't use the multiplier of 3 where we owned large tracts of land, such as at terminals, because the severance damage,—of course, where you buy a man's whole farm there is no severance damage. In other words, the severance item decreases very rapidly as you buy a piece of land half a mile wide down to a narrow strip; so I didn't use the multiplier of 3. Dilworth was one of the places where I didn't use the multiplier of 3.

Q. Dilworth doesn't come under the head of agricultural lands generally?

A. Oh, yes; Dilworth? You mean in what sense,—the land itself?

Q. Well, you are establishing some shops or yards or terminals or something there.

A. Yes, we are making a large terminal there, but before that went in there, it was all farm, highest degree of cultivation; it is just six miles from Moorhead, right in the Red river valley, beautiful land.

Q. When did you go in there?

A. We went in there—I think we bought that property in 1907.

Q. Well, now, what I wanted, Mr. Cooper, was to call your attention to agricultural lands generally, and I see, of course, as you say, that Dilworth is not a typical instance. Generally, in the valuing of lands through an agricultural district, you established what you call the market value in the way you determined, what a railroad company would have to pay for it?

A. Yes, sir.

Q. And then you multiplied that by 3 as the right-of-way value?

A. Yes, sir.

Q. Do you understand that that was the method pursued by Mr. Morgan in giving his value?

A. I do not know. He used the same multiplier of 3—

Q. He used the same multiplier of 3?

A. —but whether his market value was—

Q. You have several times referred to making up these values upon the basis "used by the engineer?"

A. Well, we made up ours first so that we could not have followed his lead.

Q. You made them up after his letter of instructions?

A. After his letter of instructions.

Q. And they purport to be in accordance with that letter of instructions?

A. His letter of instructions was absolutely silent on this question of market value and value for railway purposes.

Q. Now, do you not understand that Mr. Morgan, in testifying that the multiple of 3 should be used as explained by him and as used by him in Estimate A, only did so when the land was taken at its true value and not at any value that a railroad company or any other person might be compelled to pay?

A. I don't understand, I don't know that I was present when Mr. Morgan testified as to the basis of his market value, I don't recall that I was, so that I really don't know. Keep in mind, of course, that all I know about Mr. Morgan's report, the basis on which it was made up, is what I gather from his printed report here and what he said in this case.

Q. Well, now, if that multiple of 3, or if the smaller multiple, used in the cities, is proper to be applied at all, it is of the very first importance, is it not, that the basis or the sum to which the multiple is to be applied should be established?

A. That is correct.

Q. You have put into the market value the excess cost which a railroad company pays for land?

A. That is correct.

Q. Then, when you multiply that by three, you are multiplying by three one of the elements going to make up excessive cost to a railroad company?

A. That is right.

Q. So that, if the multiple should properly include the excess cost to a railroad company, that would make a very large difference in the ultimate figure arrived at?

A. Yes, but I don't know that anyone has defined any rule, or that any rule has been established by custom or otherwise, how that multiple shall be used. No one ever heard, so far as I know, of any such scheme of getting up a valuation, subdividing it into market value and railway value purposes, until we made it in this report to the State, and then we were left at sea, so far as instructions were concerned as to what the State wanted.

Q. Well, you think you did pretty well under the circumstances?

A. We did the best we knew how, and we have tested it. Keep in mind the only test that the Company can apply to it, to-wit, the purchases made by it within the last three years in the state of Minnesota,—and that line-change proves that my figures were correct. That is shown in that exhibit there to-day. Then there was an exhibit in this case, in the early part of it where I showed what the cost of the right-of-way had been on a number of lines that the Company had constructed,—only one of them in Minnesota, but several of them in Montana and other places,—in which I showed the cost per acre of the right-of-way, and in my testimony I explained the character of the country that I went through and showed that the multiplier of 3 as a rule was too low.

Q. Well, now, I am afraid this is repetition, Mr. Cooper,

but I would just like to ask one or two questions to see if I fully understand you. In every case, what you have given here as the market value of lands, the sum stated by you, includes the amount which you estimate the Railroad Company would be compelled to pay in excess of the true market value if it were now compelled to purchase the land?

Mr. BUTLER: Now, that has been always understood as eliminating severance damage and improvements and general expenses?

Mr. O'BRIEN: Yes.

A. That is correct.

Mr. HOW: I never know what "true market value" means unless it is to be contrasted with false. I don't think Mr. Cooper knows what "true market value" means, or the Master or counsel, or anybody.

Q. And you are unable to state how much, upon the average, you have added to the true or normal market value, to allow for the additional amount which the Railroad Company would have to pay upon the hypothesis that it is now compelled to purchase the land?

A. That is correct.

Q. And then having determined, to your satisfaction, at what figure or sum you would place the market value of this property to the Railroad Company, as you have described, you have added another sum for severance damage, cost of improvements unnecessary to the Company, easements in abutting property, and general expenses?

A. That is correct.

Q. And you have determined that, in agricultural communities, this second addition is shown by the use of the multiple 3?

A. I think the multiple of 3 is too low, and I so testified in this case. When you are going through a highly cultivated country, I think the multiplier of 3 is not enough.

Q. But that is what you used for the purpose of arriving at

the right-of-way value of lands through the agricultural communities?

A. That is right, in this state.

Q. And in the cities, in the three large terminals, you have added to what you describe as the market value of the lands to the Railroad Company, ascertained as described by you already, the amount necessary to produce the difference shown in your testimony between the market value of the terminals and the right-of-way value?

A. That is right.

Q. And while you are able to show, and we can ascertain from an inspection of your testimony, the amount of the difference between the market value to the Railroad Company, as you have described, and the right-of-way value, and, in the rural communities or agricultural districts, the difference between the market value to you and the right-of-way value, there is nothing in any of your exhibits which will show, nor are you now prepared to state, the difference in what might be termed the normal, true, ordinary market value of the lands to the ordinary individual, and the sum which you have fixed as the market value to the Railroad Company if it were now compelled to purchase?

A. That is correct.

RE-DIRECT EXAMINATION

By Mr. How:

Q. Mr. Cooper, you have had the benefit of a large amount of experience in acquiring lands for railway uses, I take it?

A. Yes, sir.

Q. Both your own and that of others with whose operations you have been acquainted in the acquisition of lands?

A. That is correct.

Q. I will ask you if you ever knew of any system of facts, basic facts, upon which you could declare positively the exact cost, or the approximate cost, even,—facts alone, leaving out

your judgment based upon your experience—of the acquisition of any land for railway uses.

A. I never heard of any plan by which that could be determined at all.

Q. Did you ever know of anybody who claimed to make use of any such basic facts before Mr. Morgan's testimony was produced?

A. I never did.

Q. Did you ever hear of anybody who claimed to be able to estimate, even approximately, the cost of acquisition of railway properties unless upon the basis of experience in the acquisition of railway property?

A. I never did.

The MASTER: May I ask one question, right here, before you ask another? Then that is a matter of personal judgment with you, as applied to each particular case, in view of all the surrounding circumstances, and in the absence of any rule except your own experience?

WITNESS: That is correct, excepting that I supplement my own experience by the experience of others that I think may know a local situation better than I do.

Mr. How: My questions were intended to elicit just that fact.

The MASTER: I wanted to find out what I thought was the situation and what you apparently did bring out.

Q. Now, I ask you with regard to Ex. 74. You have 411 transfers in that, showing a relation of assessed value to the actual price paid, as disclosed by the records, varying from 5 per cent to 370 per cent, perhaps (perhaps the variation is even larger), and the average relation is 50½ per cent; I ask if that exhibit contains any information which, in the light of your experience and with the assistance of the experience of others that has been vouchsafed to you, you can declare what is the relation between the assessed valuation of any piece of

property or any collection of pieces of property and the amount which you or anybody else will have to pay for that property.

A. None whatever.

Q. Now, it may be (I don't know) that the amount of consideration in those transfers varies from $100 (or $50 perhaps,) in the lowest to $100,000 in the highest?

Mr. O'BRIEN: It is more than that; the Angus property is in here at $225,000.

Q. $225,000, then, is the highest; it may be that the average consideration of those 411 transfers is $2,500; I ask you if that fact gives you any information upon which you can predicate an opinion as to what any lot in the city of St. Paul will cost you.

A. None whatever.

Q. You see the relation between the two questions—could you estimate the relation of assessment value to the cost any better than you could tell from that exhibit what a lot would cost?

A. None whatever.

Adjourned until Thursday, March 11th, at 10 o'clock A. M.

FEDERAL BUILDING, St. Paul, Minn., Friday, April 30, 1909.

The hearing was resumed at 10 o'clock A. M., having been adjourned to this date during the taking of testimony in the Great Northern case.

HOWARD ELLIOTT,

recalled on behalf of Complainant, testified:

By Mr. BUTLER:

Q. You have heretofore testified in this case, Mr. Elliott?

A. Yes, sir.

Q. And have stated your official position, and, generally

speaking, your railroad experience?

A. Yes, sir.

Q. "Complainant's Ex. 79—Elliott" is a statement under caption "Northern Pacific Railway Company, lines in Minnesota, statement of operating expenses divided as between passenger and freight business, year ending June 30, 1908." This statement is a statement prepared by the accounting department of your Company?

A. Yes, sir.

Q. And locates to Minnesota certain of the operating expenses out of the whole mass of operating expenses, and then makes division between the freight and passenger business in Minnesota?

A. Yes, sir.

Mr. BUTLER: The exhibit is offered in evidence. We will state that Mr. W. G. Johnson, the Assistant Comptroller, had immediate direction of the preparation of this exhibit and will be submitted for cross-examination. It is, as we understand, made on the same basis as Ex. 47—Martin was made, in the Great Northern case. It will be recalled that when he was upon the stand a similar statement (Ex. 47) was taken up, item by item, and the method of division territorially stated, in each instance, and then the method of division between freight and passenger. Mr. Elliott had not the personal and immediate charge of making the figures.

Q. "Complainant's Ex. 80—Elliott," is a statement under caption "Northern Pacific Railway Company, statistics for business year ending June 30, 1908." Mr. Elliott, will you state, briefly, what is shown upon this exhibit? I don't mean to call for the figures, but a characterization of the information.

A. This exhibit shows, in as condensed form as practicable, the miles of track in the Northern Pacific System, classified into main track, first, second and other kinds of track;

the mileage in the state of Minnesota classified in the same manner; the total equipment, and the average capacity of the freight equipment. Also shows the business, freight and passenger, handled on the whole system, and the statistics as to the tons and passengers carried, and carried one mile, and similar information for the state of Minnesota, segregating the business purely local to Minnesota from the interstate touching Minnesota. Also the rates per ton per mile and per passenger per mile for the local intrastate business, and for the interstate business; also shows the total gross revenue, gross operating expenses, net operating revenue on the whole system, and similar expenses for the state of Minnesota; then a subdivision of the operating expenses in the state as between freight and passenger expenses, and a further subdivision of those expenses under certain heads of expenses.

Q. The Minnesota expenses, as stated on this statement, as I understand it, is divided between freight and passenger but includes the whole expenses for the interstate business done in Minnesota as well as for the business which is strictly local to the state in Minnesota?

A. That is correct.

Q. There is not undertaken by this exhibit any statement of division between intrastate Minnesota freight and interstate freight in Minnesota?

A. No, sir, no effort has been made in this statement.

Q. Or as to passengers?

A. Or as to passengers.

Mr. BUTLER: Complainant's Ex. 80 is offered in evidence.

Q. Does your company keep accounts for the purpose of stating the cost of either Minnesota intrastate freight business or Minnesota intrastate passenger business?

A. No, we keep no such accounts.

Q. Do you know whether or not such accounts are generally kept by railroads?

A. My information is that no such accounts have been kept by any of the large railroads with which I am reasonably familiar.

Q. In your opinion, is it practicable to keep accounts showing with accuracy such cost?

A. I think it is not practicable, under any system, to keep those accounts in such a manner as the results would really mean anything.

Q. Why not?

A. The movement of state freight and interstate freight is so involved one with the other, and the class of expenses incident to such movement is so involved one with the other, that any effort to separate would be a mere arbitrary one, and would not, in my judgment, represent absolutely the true cost of one or the true cost of the other.

Q. What you have said as respects freight applies, or not, as to passenger?

A. It applies to both freight and passenger.

Q. Now, even if such effort were made, can you characterize the amount or kind of work that would be required in attempting to make such arithmetical separation of the expenses local to the state and division between interstate and intrastate in each state?

A. Any attempt to make such a subdivision would involve a very marked increase in the administrative features of a property like the Northern Pacific in Minnesota. You would have to have a very large increase in men at all terminals, men at stations, men at divisional points; you would have to have an elaborate system of classification and subdivision of accounts for every class of expense that you have, with the idea of making effort to show how much of the expense of any given kind was allotted to the state as against the interstate. All of those preliminary steps to obtain the data would have to be done in the field and be done more or less by labor that

is not accustomed to such a refinement of accounts. It would have to be supervised as well as possible by more experienced men, but it is doubtful whether under any system your preliminary data could be obtained so that it would be of any value. Assuming, however, that you could get all of these preliminary data under suitable heads and have it brought to a central point for digestion and classification and results, it would mean there a very large increase of your accounting force in your general offices, and in the end you would have a mass of figures which might be of value and might not. My own judgment is that it is very doubtful whether the final result would throw any more light on the subject under discussion than can be obtained by taking the judgment of gentlemen who have been engaged in business for more or less years and have observed day by day the course of events and the forces that are at work in the management and handling of the business. In fact, I will say that my judgment is that your final tabulated results would not be worth as much as the judgment of experienced men who study the business every day and every moment.

Q. I observe by Ex. 80—Elliott, on page 2, under the caption "Traffic in Minnesota, freight, all divisions in Minnesota," first, a statement of the tons carried; next, of tons one mile in Minnesota; and then, under the head "Average haul-miles, entire distance" local, 104.52 miles, entire distance "interstate touching Minnesota," 485.3 miles, and in Minnesota "interstate touching Minnesota," 185.86 miles, which indicates that, on the average, the haul of interstate business touching Minnesota is between four and a half and five times as great as the average haul of business local to Minnesota, and want to ask you whether or not you ever considered, during your railroad experience, the relative cost of short-haul business as compared with long-haul business.

A. Yes, sir, I have.

Q. And which is the more expensive to do?

A. The short-haul freight business on a railroad, in my judgment, is very much more expensive than the long-haul business.

Q. And on the same page of the same exhibit, immediately following what I last called attention to, is a statement of the "Revenue allotted in Minnesota, revenue per ton in Minnesota local and interstate touching Minnesota," and "Revenue per ton mile in Minnesota," and "Revenue per ton mile interstate touching Minnesota," the relation between the latter being next stated as 1.44 is to 1, the local business yielding the higher revenue per ton per mile. I will ask whether or not it is generally true in railroad freight schedules that a higher rate per ton per mile is allowed or yielded for the shorter than for the longer haul, other things being equal as to kinds and classes of freight.

A. Yes, that is not only generally true but, so far as my observation goes, it is absolutely true, and in my own experience I think that the ratio in other states is more than 1.44 to 1; I think in Minnesota and on the Northern Pacific that ratio is unusually low, local rates are entirely too low in this state.

Q. That is, that the average rate per ton per mile for the local business as compared with the average rate per ton per mile for the interstate business in Minnesota and on the line of the Northern Pacific in these two averages, are nearer together than is usually the case, as I understand it?

A. That is my judgment, yes, sir.

Q. Now, as respects the intrastate freight business in Minnesota, the average is shown by this exhibit to be 104.5 miles, practically speaking; some of that business is hauled, of course, a much shorter distance, and some a much greater, than the average?

A. That is correct.

Q. But, as compared with the interstate business touching Minnesota or the average of all business on the whole line, are you able to state generally whether or not the Minnesota intrastate business is to be considered short or long-haul business?

A. I should say the Minnesota intrastate business would be considered in the short-haul class of business.

Q. And how is it carried as respects the character of trains, speaking generally; is the Minnesota intrastate business carried upon through or local trains, or both ways?

A. The bulk of the Minnesota local intrastate business is carried on what are ordinarily defined, in railroad language, as local trains. There is a certain amount of intrastate freight that is carried on what are called through trains. There is also a limited amount of what is called through business carried on local trains, but in both those cases the fact that the average haul of the local freight is approximately one-fifth to the average haul of the through freight, indicates that the volume of the local business on the through trains or the volume of the through business on the local trains is not sufficient to distort or change the average very materially.

Q. In your opinion, does it cost more per ton per mile to do the Minnesota intrastate business than it does to do the interstate business on the line of the Northern Pacific or the interstate business on that line which touches Minnesota?

A. It costs more to do the local intrastate business.

Q. And it appears that the rates yield more. Now, are you able to tell us whether or not, in your opinion, it costs more in proportion to the revenue yielded by the interstate than by the local?

A. My judgment is that the cost of doing the local intrastate business is higher in proportion to the average rate received, namely, 1.191 cents per ton per mile, than is the pro-

portion of the cost for doing the interstate business, yielding .8279 of a cent per ton per mile.

Q. In other words, that means that the percentage of operating expenses to revenue in the state business would be higher than the percentage of operating expenses to revenue in the interstate business?

A. That is my judgment, that you would use up a good deal more of your 1.191 cents in doing the business locally than you would of your .8279 of a cent in doing the through business.

Mr. O'BRIEN: Or, in other words, that you would make a larger profit per ton per mile on your interstate business from which you derive an average revenue of .8279 of a cent than you do on your state business from which you receive a revenue of 1.191 cents?

WITNESS: Probably, yes.

Mr. O'BRIEN: I mean that is what you mean by that?

WITNESS: Yes, sir.

Q. So then, if the total freight cost in Minnesota, as shown on Ex. 79, were to be divided between the state business and the interstate business on the basis of revenue, enough would not be charged as the cost of the state business?

A. Not in my judgment.

Q. Will you state, with as much detail as you can, the elements of the extra cost of doing the state business or the short-haul business, as compared with the longer-haul business on your line?

A. To begin with, we have the fact, already stated, that the average haul of the state business is 104.52 miles as compared with 485.3 miles for the interstate business; and this in itself is one most potential element in the direction of higher cost. The state business has to be handled twice at a state terminal. The interstate business is handled only once at a state terminal, on a part of the freight, and is not

handled as a terminal freight shipment at all, on such classes of freight as cross entirely through the state in either direction, and this business amounts on the Northern Pacific road in Minnesota to from ten to fifteen per cent of the total freight movement. The local short-haul business uses up most valuable terminal facilities in order to obtain its proper handling from the larger distributing centers, and uses those facilities to a much greater extent for the tons handled than does the longer through business. A large car to-day will occupy a piece of ground that will be approximately 50 feet long and 15 feet wide, or 750 square feet of ground with the tracks upon it; and in order to do the local short-haul business a car is set there, and that space and the use of that ground and track are taken up for handling the tonnage going locally in a car which at times is only two and a half tons on the local business and may go as high as ten or fifteen, perhaps, but not often; therefore, you are using very valuable facilities there and depriving yourself during the time you use them of their use for long-haul business where you would use the same facilities to load 15, 20, 30 or 40 tons in the long-haul car. The same thing may be said about the use of your warehouses in the larger distributing centers, that the charge against the ton of the local short-haul business, in the fact that its small business is greater for the revenue received than is the charge for the long-haul, better-paying business because it takes the same amount of floor-space to handle the local freight going ten miles as it does to handle it if it goes a thousand. When you come to your country terminal, you would have to maintain a suitable warehouse; you would have to have the necessary industry track and team track, and often many special sidings to one industry or another, all of which means greater maintenance of track for a limited amount of tonnage handled at that station and greater care and attention per unit of freight handled. The amount of clerical labor and ware-

house labor connected with the local business is much greater than is the case in long-haul through business. You may have to make and do have to make, a great many more way-bills and manifests and other blanks incident to the checking and care of the local business for the revenue involved than you do for the longer haul through business. This very fact increases your costs all along the line, because every time a transaction is initiated on the railroad, in order to properly cover the car and accounting of it to a final result in the treasury there are very many steps taken, so each individual transaction is multiplied many times. The fact that you have a great many individual transactions in this short-haul business increases your chance of damage in the handling of the freight and increases it on account of this short-haul and the terminals accruing so much more frequently, more in proportion to the ton of short-haul freight than in the ton of long-haul freight; and to some extent these general rules apply (although to not so large a degree) to the movement of commodities that may go in carloads; the two terminals accrue again; there is an excess use of equipment for loading and unloading in proportion to the length of the haul; there is generally a larger movement of empty cars in one direction or the other for handling the local intrastate business; the fact that you have to allot a larger number of cars per ton of freight to your local intrastate business makes the maintenance-of-equipment charge much more per ton on that class of business than on the through,—and I will touch on that more in detail later. When you come to your train cost, it is obvious that only to a limited extent can you load your local or way-freight trains to their entire capacity for the length of the run. You may start a local or way-freight train from its starting point, with the total number of cars that that train should handle, but they are dropped as you go along the road at point after point, and at many places the train will

only handle from 40 to 60 per cent of its capacity in doing the way-work. The risk and wear and tear on your local train is greater because of the constant stopping and starting, the increased switching, and those very facts result in greater damage to equipment, greater wear and tear to your frogs and switches and other tracks surrounding your country terminals. The local train is also generally on the road more hours than a through train, and for that reason it consumes more coal, because even when the engine is not moving it is burning more or less coal, and the local switching at the country point means a considerable consumption of coal. It is an unfortunate fact that in Minnesota the arrangement of the smaller country stations and the industries surrounding them have grown up more or less haphazard, with the result that the amount of shifting of cars is very large; there may be a lumber-yard on one side of the track and a coal-yard on the other and you have to make two movements because of the different location of industries, when, if those who created the railroads had realized the difficulties that were coming in the future, they could have arranged the industries so as to minimize this switching movement—all of which creates expense and increases risks. Many of the so-called local trains, in order to increase the facilities of travel, permit the handling of passengers, which is a very bad practice from an economical railroad standpoint. The few passengers that travel in the way-car or caboose are uncomfortable and don't like to go that way, but prefer it to waiting for a passenger train, and the railroad takes them as a matter of convenience. In doing that, often two stops have to be made of the local freight train at every station, one stop for the passenger and then another stop to begin to do the local freight work. Those extra stops are in themselves an expense and the risk of handling passengers on such local trains is great. I have within my own experience two

claims in mind, one where we paid $3,500 for damage to a lady passenger from which we collected less than 40 cents. The damage came about because the train made a stop for a rail crossing, and she thought that was the place to get out, so she got up to leave the car; the engineer then started suddenly, and the slack of the train jerked the rear car so she was thrown very severely against the stove, and we finally settled for $3,500. We had another case of a very similar character where a traveling man was thrown down, and he collected quite a bill of damages. I do not remember the details in that case with the exactness that I do in the other. But it is a fact that you increase your risk when you go into the passenger business on way-freights. We had a case, only a short time ago, I think it was at Jamestown, N. D., where a traveling man stepped off the car in the dark, fell and bruised himself and as a matter of policy we thought it was best to settle the case and it cost us several hundred dollars. That is an element that must be considered in this local freight movement. There is also an increase in the chance of injury to our own employes on account of the switching at all points; we frighten horses, sometimes, in switching back and forth, occasionally strike wagons; it also opens the door, I am sorry to say to increased stealage and pilfering, from our own employes; it is a sad fact, but we cannot get absolutely honest men, and we lose a great deal more from the way-freights than we do on through trains, all of which tends to increase your costs. The cost of operating a local train is sometimes decreased because it handles through freight, and to that extent the through freight business helps to reduce the cost of local freight and is a benefit to it. If there were no through freight at all on any of these branches and main lines where the local freight runs, the cost of running the local business would be still higher; and, per contra, the cost of operating some of the through trains on the main lines, where

a limited amount of local freight is handled for the purpose of expediting, is increased because that through train has to stop and set out these local cars, so that it works both ways, the local cost is helped out by the through business, and the local business increases the cost of the through trains. The wages of the employes on the local trains are in the main higher than on the through trains, possibly 25 per cent more, and in addition there is often constructive mileage allowed on the way-freight trains because the run is short, and because of the at times heavy volume of business to be switched at these local stations, over-time is made, which is expensive. On account of the fact that the local train is rarely used to its full efficiency and that the engine does not carry all that it can, it is probable that a local train will not produce a fifth of the ton miles in its operation in a day that a through train will do; in fact, I believe in some parts of Minnesota that some of the local trains would not produce a tenth of what the through freight train would produce.

Q. In ton—

A. In tons one mile. When you come to the carload, there is another element of expense there. Exhibit 80 indicates that the average capacity of all classes of cars on the Northern Pacific is 34 tons. In local business the cars are rarely loaded to their full capacity, often in the merchandise business they are loaded with two or three thousand pounds; I believe the statistics made a year or two ago indicated that the merchandise averaged two and one-half tons to the car; so that it is obvious that you do not get the full use of your car-loading in the local, short-haul business. Then it is a fact that only at certain seasons of the year will there be business both ways locally on the railroad; the result is that there is a much greater empty mileage of cars moving on account of the local business. So here again your car will not produce the

ton miles in the local short-haul business that it will produce in the long-haul through business.

There is an item of constant expense in connection with the local short-haul business that I will try to describe under the general state of "readiness to serve." Now, the state business is scattered. As already pointed out, it is of the short-haul; it moves more or less irregularly and spasmodically; there may be one or two days in a week it is good and the balance of the time it is poor; it may be one month that it is fairly good and for several months there is very little. The railroad, however, must prepare for the maximum business or the "peak" load, not only in trucks, but in having equipment, engines, cars and organization engaged for the purpose, and all of those facilities are only worked to their capacity for a limited period of time, and this very fact, of being ready to serve a volume of business that rarely comes, necessarily makes the average cost per unit very much greater. Now, that principle is recognized to a very limited extent in railroad practice because we are allowed to charge demurrage on a car when it is ready to serve, but we get an insignificant amount for the use of the car while it is standing idle; so that, to a limited extent, in railroad practice, the theory of charging something for ability to do business is recognized, but not nearly enough is charged or collected for readiness to serve. If you go to-day to make a contract with an electric-light company you will find (at least it is my experience) that you are charged a certain price per unit of power, but you are told that whether you use the power or not you must pay a fixed minimum because the power company says "we make this power, we have it ready and we cannot store it up and keep it ready for you and then if you don't use it sell it to some one else; it is gone, it exists to-day and it is not ready for to-morrow, so you have to pay for readiness to serve." The same thing is true about water-power; you can't go and buy water-power and only pay for it as you

use it, you have got to pay some minimum price. The same thing is true about a hotel; you can't go and hire a room and if you don't use it in any way say you won't pay for it, you have reserved the space and you have to pay for it. Well, now, the Railroad is receiving no compensation locally for its readiness to serve, and it is entitled to a very liberal compensation for the fact that it is there, for its investment, its track, its organization, its equipment, its facilities, it is entitled to a very liberal compensation when it *does* move the business, because it rarely gets its readiness to serve used to the full efficiency. And insensibly that very fact means that the local costs are very much higher, and, as a matter of fact, the local rates should be very much higher than they now are so as to take account of that readiness to serve, and the railroad managers, and owners themselves, have lost track of that fact; in their own methods of making rates they have not paid enough attention to it because they have been busy about other things, they have let their local rates run down entirely too low, failing to realize that their readiness to serve is a great daily burden. They probably have done that because the railroad business has expanded tremendously in the last 25 years and this enormous volume of commerce moving back and forth across the United States has taxed the brains and energy and strength and financial ability of every one connected with the railroad, and the railroads have not differentiated to the extent that they should in studying their business. I remember very distinctly how, when early in my railroad business I was in the state of Missouri in charge of the property that went from St. Louis, Missouri, to Keokuk, Iowa, where at that time, we did almost entirely a local short-haul business. The road had failed twice (a second time while I was there), and the reason was two-fold: first, the local rates were entirely too low; second, that, even with higher local rates and as high as were justified in order to move the com-

modities, there was not sufficient volume to pay out; later on, the road made money, for two reasons: I was auditor of that road for quite a while, and as such was in a position to study the receipts and expenses, and, later on, I became general freight and passenger agent, and I made up my mind then that the local rates were entirely too low, and I devoted about four years to trying to advance them without dislocation of the business. As a result, I raised the local rates from 50 to 100 per cent, and the boat which was in competition with us followed right along. Our business increased in volume although we got the rates up, as I say, from 50 to 100 per cent locally, and that helped the earnings of the road, and in addition we began to get long-haul through business, and the two factors together pulled the road out of trouble and made it a paying piece of property. But I instance that point as indicating that railroad owners and managers, in the great pressure that is upon every one of us, with the multitude of things that take our time, are not always able to differentiate to the extent that they should in studying their business, and that, in my judgment, the local rates everywhere, not only in Minnesota but everywhere where I have had any experience with them, are entirely too low, and that the fact is somewhat lost sight of because there has been this great volume of commerce going back and forth across the country, and, in the aggregate, it has paid the railroads. But, now that a magnifying glass is being put on every transaction, the railroads must study it, and when they do they find just what I say, and the losses on the local business (which I believe have been large and pretty constant) have been lost sight of because in the aggregate a through business and the general income of the railroad has hidden them. And I want to make, your Honor, a point on that readiness to serve, because I think it is a very vital point for consideration of every one interested in railroad rate-making, and it is only a question in justice

that it should be given weight by those who make rates for this local business (or, for any other business, for that matter,) but it is very important on this local business.

When you come to the use of equipment, I will give you a few examples showing how equipment is not used to its full capacity in this short-haul business. An engine has to be allotted to the way-freight or the branch run; it is generally used in the daylight, and it is held for the local service when otherwise it might be used for some other class of business. For example, we have an engine which represents an investment of $18,000, which we will say is handling the business between Staples, Minnesota, and Dilworth, Minnesota, one of our best engine-runs, and where there is a large volume of business. That engine can handle easily sixty loaded cars over that engine-run, which is 100 miles. Sixty loaded cars 100 miles make 6,000 car miles. The class of business that is passing back and forth there will average 20 tons to the car, if not more. So that $18,000 engine will handle 60 cars 100 miles with 20 tons in a car, or it will produce (if you choose to use that expression) 120,000 freight ton miles in its day's work. That is to say, for an investment of 6 2-3 cents in an engine, we get in that case a ton one mile. Now, we have a light branch-line somewhere where we have a smaller engine, of less capacity, which, for the sake of illustration, represents $10,000; it is there ready to serve; and it handles, perhaps, twenty cars when it starts out, and drops down to ten, maybe only five, when it gets to the end of its run. Suppose we say there is an average of ten cars and the branch is 87 miles long; it makes 870 car miles in its day's work; if the lading of the local cars will average eight tons (it is a good average, 16,000 pounds) you have 6,960 ton miles produced by that engine in its day's work, or your $10,000 engine produces 6,960 freight ton miles in its day's work, which means that you have $1.43 invested in an engine for the purpose of mov-

ing your ton one mile on the branch road, or nearly twenty-five times as much as on the through heavy service. It may be said that the big $18,000 engine does not always have its 60 cars, but it will come more nearly, in my judgment, to having its 60 cars in the working days of the year on the through run than the smaller local engine will come to having even the amount I say, ten cars, for every day in the year.

When you come to the use of cars, the local car has to be used a great deal more in time in order to produce revenue or ton miles. I will give an actual example. Aldrich is on the Minnesota division of the Northern Pacific and is a place where wood is obtained, and a shipment is made to Elk River, not very far from St. Paul. An empty car must be moved from Staples, the nearest point where an empty can be found, to Aldrich, using up one working day. Two days are allowed free for the loading of the car. After loading it must be moved back to Staples on some local train, which takes another working day; it then will be moved to Little Falls on another local train, making another working day; then to Elk River on another local train, another working day; it is allowed two days free time for unloading, and after being made empty it must be taken in most cases to some point for a load, presumably, in that case, to St. Paul. So you have used up nine days moving that car 107 miles. That is assuming that the farmer loads his wood promptly, that the weather conditions are good, and that it is unloaded promptly at the other end and that there is no slip on the part of the railroad in getting it about on the first trains that can handle it, and that it is not damaged in switching anywhere so it would have to be put on the repair track for minor repairs. A similar car could have been loaded with merchandise or any other class of freight at St. Paul and gone 1,900 miles to Seattle in the same time. If there were 15 tons of wood in the Elk River car and it moved 170 miles, that car in nine days

would have made 1,605 ton miles; a great many cars move from St. Paul to Seattle with 20 tons of freight in them. 1,900 miles with 20 tons of freight means 38,000 ton miles, which could be made by a freight car in the same nine days.

Another example that could be given would be the movement of potatoes. Potatoes, as every one knows, are raised freely in Minnesota. Up at Glyndon, a local point near Dilworth, a car of potatoes could be loaded and shipped to Starbuck, another local point on the Little Falls branch, I think it is approximately 200 miles; going through just the same method that I did in the Elk River example it would take approximately nine days to complete that transaction, or 22 miles per day for the car. The same man dealing in potatoes might have taken that car and loaded it to Beach, N. D., which is in a growing country, to which point it is not an unusual transaction for potatoes to go. It is main line all the way. That transaction could be completed in seven days, and it is 379 miles, we get 55 miles there out of the car, two and one-half times as much in that case. Potatoes are raised up at Groningen on the St. Paul & Duluth line. It would not be an unnatural shipment for them to go to Breckenridge. That would take, if everything worked well, from the time an empty was ordered in until it was released and placed at some point for loading, about ten days, or 25.7 miles per day. The same shipment might go to Dickinson, N. D., which would take about the same time, ten days or 58 miles a day.

Cedar posts are produced in Minnesota and are shipped both to Minnesota points and to points outside. At Tamarack, on the line between Duluth and Brainerd, a shipment might be loaded for Red Lake Falls, 238 miles, which would take it, at a minimum, 8 days, and probably ten days counting the free time allowed at each end to the man loading and the man unloading. If ten days, you would have 23.8 miles per day that you would get out of that car.

Or, a shipment of cedar posts might be sent to Charna, N. D., which is out in that same Beach country that I mentioned, where there is considerable fencing going on, a main-line movement all the way; it would be 655 miles which could be done in ten days, allowing two days for loading and unloading, or 65 miles per day, nearly three times as much use of the car as in the Tamarack-Red-Lake case.

A car of merchandise could be loaded at our Duluth freight house for intermediate points between Brainerd and Hayden. If we got 6,000 pounds in a car in that part of our territory (where the purchases are light) it would be a fair average. The average distance that that car would be hauled with its load before it would be discharged would be 123 miles; the freight rates on the first four classes of less than carload freight are 35 1-2 cents, 29.6, 23.7, 17.8, or, roughly, an average of 20 cents; that is, the third and fourth classes are probably the bulk of the business. 6,000 pounds at an average of 20 cents would make $12 that we would get out of that car. It takes five days from the time it is set until it is released and placed somewhere else for loading. If we sent a similar shipment from Duluth to points between Carlton and Deerwood, average haul 71 miles, the rates in that case on the first four classes are 25.7, 21.4, 17.1 and 12.9. From the time that car is taken and placed and returned to some point where it can be started again on a new commercial transaction is about five days; the average rate 15 cents, 6,000 pounds, $9 that we would get for that. Now, the car instead of doing that could have been loaded with merchandise from the Marshall-Wells concern, from Duluth to Spokane, and if we assume a light load of only 15,000 pounds of the miscellaneous stuff that Mr. Wells would ship, at $1.75 a hundred we would get $262.50, and we would make that in from seven to eight days, and at Spokane, when the car is released, there is an immediate use for it.

Or, a car could go from St. Paul to Walla Walla, loaded with pianos. Walla Walla is in a very rich part of the state of Washington, and they buy a great many expensive things there; carloads of pianos are not unusual shipments to that point. The pianos pay $2.85, 12,000 pounds minimum, or $322. That car should make the trip from St. Paul to Walla Walla in ten days, or 172 miles per day, earning $322.

I have simply given some of these examples to indicate how the freight car in short-haul local business fails to be utilized to its capacity; and it is impossible to utilize it any better. It is not any fault of the railroad or fault of the community. The community has to be served, must have its merchandise, must have it with reasonable regularity. The railroad, of course, would prefer not to send the merchandise to a local point but once a week so it would have a car completely filled, but commercial customs are such that there is much more hand-to-mouth merchandising now than there used to be. In fact, it is well known that people will telephone from a local country point this afternoon to the jobber at some central point, and the merchandise will be there within a day or two, but the car is not used to its capacity and it cannot be, in the nature of things. Now, that failure to utilize your car means that the cost of your maintenance of equipment in your local business is necessarily far and away greater per ton handled than is the cost in your through business. As I believe I have already pointed out, the mere fact that the more frequent switching increases the strain on the car, damages the draw-bars, knocks out the end-posts, the more frequent loading and unloading will damage the body of the car, break out ends sometimes, knock the door off its hinges and create a great deal more expense often than will be created on a long-haul through movement.

Again, as I have tried to point out, if there are only five tons in a car for local business, it takes nearly four times as many

cars in the local business to make the same number of ton miles as the car in the long-haul through business, and that is without counting the slower movement of the local car and the fact that it stands around idle more than is the case with the car moving between large centers. If you consider the lighter loading, the slower movement, it is probably not unfair to say that it takes from ten to twenty freight cars in short-haul local business to produce as much tonnage mileage as one car will produce in long-haul through business. I have just pointed that out in the Elk River case (which we may call an extreme case), in which in nine days a car makes 1605 ton miles, while if that same car moved from St. Paul to Seattle in nine days it would have made 38,000 ton miles or nearly 25 times as much.

Now, the repairs on equipment on a railroad are a very considerable proportion of their total expenses. On the Northern Pacific, repairs to equipment are 21 per cent of all our expenses. So you can readily see that with the cars in local freight service, used to less than their capacity and more of them used for a given kind of business than in through and with 21 per cent of our total expenses going against equipment, the local equipment repairs per ton of freight are far above the equipment repairs per ton of freight on the through business, and must, from the examples I have given, be probably four or five or six times as great. The wear and tear of your permanent way should be considered. One without thinking would say that the wear and tear of your permanent way —that is, your track and bridges and buildings—would be no greater per ton of local freight than per ton of through freight; but that is not true. Your track is worn out by the blow given to it by the wheels and by the friction of the wheels passing over the rail. The roll load drives the rail into the tie, drives the tie into the ballast and helps to wear out the tie, helps to move the tie in the ballast and to that extent creates labor

to repair the track, it hammers the joints of the rail and makes a low joint and it rubs a little metal off the rail every time it moves. Now, a freight car has eight wheels that strike that blow every time it goes over the rail; the through freight will have from 18 to 20 tons on the eight wheels, so that the wheel blow and the consequent damage to the track is distributed among 18 or 20 tons; the local car will have from three to 10 tons and the wheel blow and friction is distributed among 8 to 10 tons of local freight. The wear and tear per ton of freight handled is greater for the local tonnage than for the through. Now it may be said that the heavier weight in the through car should be taken into account—and it should be—but it is not enough to offset the fact that the chief damage to the track is done by the general rolling weight of the car; that is, there is considerable damage to the track done. If you run empty cars and nothing else, it would not be quite so great as if they were very heavily loaded, so it is not fair to say that the charge for wear and tear because of the lightly loaded local car is in exact proportion to the heavily loaded through car, because the heavily loaded through car should receive a little more of the total damage, on account of the extra weight, but per ton of freight carried in the local car the damage to the track is very much greater than the damage to the track per ton in the through car; and, as already pointed out, the excessive switching incident to local freight increases your wear and tear at all of your smaller stations where you have to move cars several times, often, in order to place them properly at an industry.

So, take it all in all, the fact that you have this spasmodic business on the local and branch-line part of your railroad, the lighter trainload as a whole, the lighter carload as a whole, the fact that your business is not apt to be "well balanced," as we call it in our language, or, to put it in another way, the fact that you are more apt to have empty cars in one

direction or the other for the local business, the fact that you have to haul cars for local business from a distance, sometimes empty, in order to put them into the train, (the readiness-to-serve features which I have tried to point out) the rather higher wages, and these various items that I have indicated, all lead me, very conclusively, to the conclusion—which I have not arrived at since I came to Minnesota, because I had it in Missouri and had it before these rate cases came up—all lead me to the conclusion that the so-called local short-haul intrastate business costs anywhere from three to six or seven times as much as the so-called long-haul through interstate business. I claim you cannot reduce it to a mathematical certainty—I know I cannot and I don't believe any one can—but taking your experience, watching your daily reports, going out over the road and seeing the difficulties that confront the superintendent and the agent and others engaged in the business, I have come to the conclusion that this so-called local short-haul business is very much more expensive than the through long-haul, and have further come to the conclusion that, insensibly, the railroads through their managements and the state commissions in their very honest attempt to adjust rates properly and to protect various jobbing centers and to expand trade, have lost sight of the elements that create this extra cost and that, between us both, we have forced these local short-haul rates entirely too low and that the shortage is being made up, for the time being, because the longer-haul rates pay some margin of profit; but if the longer-haul rates are being shaved and the shorter-haul rates are being shaved there will be some railroads that will not have a balance to go on.

Q. So far you have confined your statement of the elements of the extra cost for doing the short-haul business to the freight business. Ex. 80 which is here in evidence on page 3 contains statistics with respect to the passenger busi-

ness, and it is there stated that the average haul of passengers within the state of Minnesota, local, is 35.3 miles and that the interstate passenger business touching Minnesota, the haul in Minnesota, as I understand the statement, is 148 miles. In your opinion, does it cost more per unit of service to do the short-haul or state passenger business than it does to do the interstate or the longer-haul passenger business?

A. Yes, sir, I think it does.

Q. Will you tell us why you think so and what the elements of extra cost are?

A. Many of the same general statements as to the methods of doing the freight business apply to the passenger situation although not to so great a degree. The fact that your haul is 35 miles for your local and 148 miles for your interstate in Minnesota shows that you have to provide facilities for loading and unloading the passenger much more frequently on the local than you do on the through. Of course, the passenger loads and unloads himself and is supposed to take care of himself in so doing, but there is a risk every time a passenger gets on and off a train and every so often there is a casualty and a consequent payment which must be borne by the business. The baggage of a passenger, however, is not loaded and unloaded by himself but is loaded and unloaded by the Company, and the increase in the movement of baggage is something that is assuming quite serious aspects in railway management. The whole system of American passenger rates is illogical in that we take a man and charge him the same price without any baggage that we charge him letting him have 150 pounds free. That system, however, is grafted on to our method of doing business and probably cannot be changed at the present time.

Recess until P. M.

AFTERNOON SESSION.

Q. When we stopped for noon, Mr. Elliott, you were stating the elements in your opinion making increased or extra cost attend the doing of state passenger business as compared with interstate passenger business; attention had been called to the average local haul, 35.3 miles, and the interstate haul in Minnesota of 148 miles. Will you continue from the point at which we stopped?

A. I do not know whether I can begin exactly where we left off, and I may have to repeat somewhat. Some of the same general principles and conditions that I outlined in relation to the movement of short-haul local freight apply to short-haul local passenger business; possibly not to the same extent, because the conditions surrounding the passenger business are somewhat different.

The passenger loads and unloads himself in most cases, so the labor involved in the greater number of terminals incurred in handling local short-haul passenger business is not increased so much as in the case of freight. The Company, however, has to provide facilities for the local passenger to get on and off of the train at much more frequent intervals than is the case with the interstate passenger who travels four times as far before he gets off of the train. The handling of the passenger's baggage does require labor, and that has to be done much more frequently for the local, short-haul man than for the through and longer-haul passenger. This question of handling baggage is assuming quite large proportions on the railroads as population increases and it is quite a serious burden in the stowing away of baggage satisfactorily in the baggage-car, in station labor for handling it and in station facilities for caring for it.

The local stations have to be warmed and lighted and kept in good order, and, as the country grows and the general plane of all kinds of living gradually improves, more money

has to be spent by the Railroad in providing these local terminal facilities which in the main are used for the shorter-haul business and are provided in response to the local demands of the community to be served.

In Minnesota, the Northern Pacific, in response to that sentiment and demand is, in common with other companies, making investments for improved local facilities that mean first, a greater interest on the investment, second, a greater depreciation charge because of the greater investment, third, a greater expense of maintenance because of the character of the structure, and these items of expense are, in my judgment, for the benefit much more of the local intrastate passenger than for the through. For example, this Company is just building a new station at St. Cloud, just finishing one at Detroit, is building a new one at Staples. I do not claim that there are not through and interstate passengers who will use these facilities but I do claim that, in the main, they are for the benefit of the purely state business and that the terminal charge on the passenger who enters the station and buys his local ticket and checks his baggage, or who gets off the local train and passes through the local station to his home, I do claim that the charge per passenger for such facilities locally is very much more than the charge incurred by the through passenger when you consider the haul of 35 miles as against 148.

Again, the local passenger train handles a much less volume of business than the through passenger train; as in the case of the freight train, it handles some through interstate business in most cases, but I think this is not a large item in the purely local trains. Many of our local passenger trains have been earning from forty cents up to perhaps a dollar a train mile and sometimes as low as twenty-five cents or even eighteen cents a train mile, indicating the use made of the train is very slight by the traveling public. The fact that the train earns such a small amount indicates that each car earns

a relatively smaller amount and much less than the earnings of a car placed in the long-haul through business.

The so-called short-haul local passenger train has to make a great many stops and has considerable station work to do; the constant stopping of these trains is in itself an element of expense, because each time a train stops there is some cost, there is some risk of accident, and there is some loss of fuel in stopping and then having to start again. The fact that passengers are getting on and off at more frequent intervals in the short-haul local train increases the risk of casualties, because people with the best of care will be careless and stumble and accidents will occur, and every time a train receives and discharges passengers that element is there and every so often it is converted into actual money by some accident more or less serious which results in a claim which must be settled.

The local passenger trains, as in the case of the freight trains, generally move by daylight and the equipment has to be reserved for use the next day and cannot be sent elsewhere and put into service. Where there is any unusual demand for service on the local trains, such as a special meeting at some small point, extra equipment often has to be brought a considerable distance to serve that demand rather than to keep it on the branch idle waiting for the occasional necessity for increased space.

Every passenger train running locally on a main line where there is an important volume of business moving, is more or less of an obstruction to the movement of such business, and that creates an expense to all the trains that may be running upon that part of the railroad. That expense probably cannot be given in dollars and cents, but those who are familiar with train movement know that the meeting and passing of trains at frequent intervals causes expense and causes delay to business other than that on the train in question.

The increased burden upon that railway company for supplying adequate, safe and reasonably frequent local service for light passenger business is not, in my judgment, so marked as is the case in the freight service, but I believe that the burden upon the company to provide such service and to meet the constantly increasing demands upon the railroad—to which it desires to respond if it can—(demands from communities and demands from various lawfully constituted bodies) that the burden upon the railroad to meet these demands means that this local passenger train service will cost from 25 to 50 per cent more per passenger per mile.

Q. It is true, is it not, that the so-called local train has some interstate or through business in it and a through train some local business in it?

A. I think in most cases that is probably true. There are some cases where I doubt if there are ever any through passengers handled. Such a case is the one between Duluth and Fond du Lac, where the Company maintains a passenger train service, and sometimes we have one passenger in the train, at other times it will run up as high as ten or twelve; but it is fair to assume that with the great interchange of business in the United States there is probably somebody on nearly every train that has either come from some point outside of the state to a point inside or may be going from a point in the state to a point outside; but in my own mind, and my observation is, that these so-called local trains are run purely for the purpose of handling the local business and of relieving the heavier through trains of the necessity of stopping, that in the main those trains are used by people that get on and off in Minnesota.

Q. Is there a kind of demand for a passenger car for local trains, spasmodic in character, (that is a good way to express it) which is not true as respects trains which for the most part carry through or interstate passengers?

A. At certain seasons of the year on the lighter local trains there is that spasmodic demand that will come on Fridays and Saturdays and then the rest of the week the business will be very light.

Q. So that to the passenger mile of product there is on the average greater car capacity required in the trains for the local than for the through?

A. Yes, I think that is true without any doubt.

Q. And that is also true with respect to the terminal service, you think?

A. I think so; I think that we have at a local station much more capacity for housing and affording facilities for the reception and discharge of passengers, much more capacity, than is needed except now and then. Occasionally the local station will have a big crowd, there will be a wedding and a great many people will go down to board the train or to see the bride and groom depart, but in the main we have to maintain a service and a facility that is not thoroughly well used, and that is evidenced by the low train-mile earnings on most of the local passenger trains.

Q. And in the matter of the expense of handling baggage, is that more per passenger mile in the local or short-haul business than in the interstate business?

A. I think it is, yes, sir.

Q. Is it not true that, generally and broadly speaking, a passenger for a short distance has less weight of baggage to be moved and handled than a passenger who is taking a long trip?

A. I think, in regard to that, that the commercial traveler has just as much baggage on the local short-haul trip as on the long-haul trip. The pleasure-seeker making a short-haul trip probably does not have so much as the pleasure-seeker making the long-haul trip, but I believe the difference in the quantity of baggage per passenger is more than offset by the

fact that the baggage has to be handled a great many more times in the local business for a haul of 148 miles than it does in the through, because the local passenger is handled every thirty-five miles, and his baggage, also.

Q. And is there any substantial difference in the number of passenger-car miles or passenger-train miles produced by trains doing mostly a short-haul business as compared with trains doing a longer-haul business, such as the interstate haul as is indicated here by Ex. 80?

A. Well, a through train from the Twin Cities to Puget Sound, the passenger car in that train will make the 1,900 miles (in round figures) in seventy-two hours or about twenty-five miles an hour, and there is only a short lay-over at that end and it starts right back. Now, the local passenger train that makes a hundred miles a day on its local car (and by day I mean 24 hours) is doing probably the average, so that in seventy-two hours it would make 300 miles as against the haul of the car to the Coast.

Q. The equipment on the Coast trains, for example, use day and night in running constantly and as fast as possible?

A. Use day and night.

Q. The branch trains and the trains doing local business mostly, how about them,—do they mostly run in the daytime only or day and night both?

A. Well, there is generally once a day, on these branch lines, a local train run. Sometimes the schedules are so arranged that it is partly at night, but in the main the Company tries to adjust its local service so that people can travel between the smaller towns by daylight rather than at night.

CROSS-EXAMINATION

By Mr. O'BRIEN.

Q. Both Exs. 79 and 80 refer to the year ending June 30, 1908?

A. Yes, sir.

Q. As I remember, Mr. Eliott, these are the first exhibits showing revenue and operating expenses introduced in the Northern Pacific case for that year.

A. I can't say.

Q. Well, were these exhibits prepared under your direction?

A. No, sir, those were prepared by our assistant comptroller, Mr. W. G. Johnson.

Q. Who determined the year for which they were to be prepared?

A. Why, I don't know whether there was any discussion about the year. In getting up my ideas I wanted to get some notion as to the haul and tonnage, and so on and I don't think any instructions were given as to any particular year.

Q. Well, of course, you all know that for many months the accountants employed by the State had been examining the records of the Company?

A. I heard that Mr. Hillman was, I never saw him in the building.

Q. And you knew that their calculation and the calculations that Mr. Johnson has presented up to this time had reference to the previous year?

A. I never checked up the dates particularly, Mr. O'Brien.

Q. As a matter of fact, apparently, now to change to the year 1908 will cause a great deal of repetition in the comparisons to be made, and it is rather unfortunate that we did not confine ourselves to the same year.

A. Well, I think there was no such thought as that in the minds of anybody in getting these statements, which were as a basis for a general discussion of a principle.

Q. Calling your attention to Ex. 80, I find under the heading system, "Total gross operating revenue on system." What does that mean?

A. That means everything the Company earned by operating its System in accordance with the classification of the Interstate Commerce Commission.

Q. And "Total operating expenses on System" includes what?

A. All those expenses that under the rules of the Interstate Commerce Commission are chargeable to operation.

Q. And what class of expenses are not included or what expenses are not included?

A. Well, there are practically none. There are certain—

Q. Are taxes included in the item of "Total operating expenses?"

A. I think not in this statement.

Q. Interest upon bonds?

A. Oh, no.

Q. And, of course, no dividends?

A. No.

Q. Rentals paid?

A. Certain classes of rentals paid are included. It is a very elaborate classification,—which I shall be glad to submit to you if you would like to have it.

Q. Well, it might be convenient if we knew exactly what items are included in your total amount.

A. I would be very glad to bring you up—

Q. Is that shown by Ex. 79?

A. Everything that is in there is shown on Ex. 79.

Q. But an examination of Ex. 79 will not show what is not included?

A. No, not necessarily.

Q. Have you those items in mind, or a memorandum of the items which are not included?

A. No, sir.

Q. Now, the same is true with regard to the items appearing on page 3 under "State?"

A. Yes, the state expenses are worked out according to a recognized rule. I think the operating revenue is purely interstate business, which can be actually determined, and the proportion of the through business, in accordance with the rules laid down by the state examiner of accounts I believe of this state. The expenses are adjusted, as nearly as we can, in the same manner. I want to say that I did not prepare this statement myself, it was prepared by Mr. Johnson, in accordance with the usual rules for subdividing expenses between states. I did not charge my mind with the exact details as to every step that led up to making it, I can very easily do that if you so desire.

Q. Well, it is very important that we should know what items of expenditures necessary upon the road are not included in your statement Ex. 80, whether they are properly classed as operating expenses or come under the head of other expenditures which still are necessary; and that you say you are not able to give us?

A. I can't tell you just how much, if anything, there was in what are called outside operations; they are insignificant in amount, I know that, and they may be in here, but I can very readily on Monday when I am here, give you exact detailed information about it.

Q. Well, if you would, because I would like to know whether or not this total net operating revenue, found under the heading of "State" on page 3, of $5,680,696.67 is the amount applicable to the payment of taxes, interest and dividends, or whether there are other necessary and proper expenditures which should come out of that.

A. All right, I will undertake, Monday afternoon, to have a complete knowledge of that situation in such shape that I can explain it to you and to the Master.

Q. Now, in regard to Ex. 79, that is a division of the oper-

ating expenses charged to Minnesota between freight and passenger business?

A. Yes, sir.

Q. The total amount charged to Minnesota and shown in Ex. 79 is the same as shown on page 3 of Ex. 80 under "Total operating expenses, State," $7,655,350.20?

A. That is right, yes.

Q. Did you supervise the division of those items between freight and passenger?

A. No, sir.

Q. As to the propriety of that division you assume no responsibility?

A. I understood when I was to be a witness that all items as to the method of subdividing had been testified to or would be testified to by the expert accountants who had made up these tables. Here, again, if it is desired, I can inform myself as to the exact method of making distribution.

Q. I am afraid you would not be able to go on Monday?

A. Oh, yes, I would. It is not very complicated.

Q. In giving your testimony you have assumed the propriety of these divisions and the correctness of these items as they appear in these two exhibits?

A. Yes, sir.

Adjourned until Monday afternoon, May 3rd.

FEDERAL BUILDING, St. Paul, Minn., Monday, May 3, 1909, the hearing was resumed at 2 o'clock P. M.

HOWARD ELLIOTT,

recalled for further cross-examination, testified:

By Mr. O'BRIEN:

Q. Mr. Elliott, when you were on the stand some weeks ago, you were asked for a statement of the assets and liabili-

ties of the Northwestern Improvement Company; have you that with you now?

A. No, sir.

Q. Have you prepared it?

A. Yes, sir.

Q. Can you give us any idea of when we can have it?

A. You can have it to-morrow; that is, I can have it to-morrow if I leave here before 6 o'clock, I will have to go to the office to get it.

Q. I understood you to say that the statements contained in exhibits 79 and 80, presented by you, were prepared by Mr. Johnson, the assistant comptroller of the Northern Pacific Road.

A. That is correct.

Q. And your entire information concerning those exhibits consists of what appears upon the face of the exhibits themselves?

A. Yes; I didn't go over the figures, I take the accountant's statements as correct.

Q. For instance, in Ex. 80, the average haul on interstate business touching Minnesota, do you know whether that is the average haul upon interstate freight touching Minnesota or the average haul upon interstate freight without reference to what territory the freight touches?

A. I understand that is supposed to be the average haul on interstate freight touching Minnesota.

Q. I now call your attention to Complainant's Ex. 1, which is a map of the Northern Pacific System, is it not?

A. Yes, sir.

Q. And upon this map each division is shown separately?

A. Each so-called operating division is shown in colors on this map.

Q. The St. Paul division commences at St. Paul and extends to Staples, does it not?

A. No, sir.

Q. Where does it commence?

A. Northtown Junction.

Q. Then this map, Ex. 1, does not seem to be correct, does it?

A. I will explain to you that what we call the terminals division takes White Bear, Minneapolis and St. Paul and, technically, what we call the St. Paul division includes that, but we have a separate division, known as the terminals division, we don't ordinarily show on any map, because it is lumped in in a way in the St. Paul division. The St. Paul division proper, begins at Northtown Junction.

Q. The St. Paul division commences at Northtown Junction and extends to Staples?

A. Yes, sir.

Q. There is a branch from Morris to Little Falls?

A. Yes, sir.

Q. And a branch from Brainerd to Little Falls?

A. Yes, sir.

Q. In the practical operation of the road in the transportation of freight, where is freight originating on the terminals division first assembled?

A. At quite a number of places. Shall I name them all?

Q. I should think so.

A. Well, we assemble it at the Prince street freight house and over at Minneapolis; carload freight is delivered by our connections chiefly at Minnesota Transfer; some freight is received from wholesalers on their own tracks.

Q. Well, that isn't what I meant by an assembling of the freight.

A. You said "first."

Q. First assembled; I didn't say first acquired or obtained.

A. Well, I misunderstood you, where we first got hold of the freight.

Q. Is Northtown Junction the point?

A. That is our large yard, Northtown Junction, where freight trains are made up, and near by is a transfer freight house where less-than-carload freight is assembled and loaded into cars.

Q. Then the yards at Northtown Junction constitute the locality where the freight originating on the terminal division is brought together?

A. In the main, yes; that is going out West.

Q. I mean the west-bound freight.

A. Yes.

Q. And you have a through train from Northtown Junction to Staples, have you not?

A. Yes, sir.

Q. Now, the freight destined to the West originating on the line between Morris and Little Falls, is also brought to Staples, is it not?

A. Destined to the West?

Q. Yes.

A. If it is destined to a point west of Staples, it would come to Staples.

Q. And freight originating on the branch from Brainerd to Little Falls and destined west of Staples, would also be brought to Staples?

A. That is correct.

Q. All freight originating on the Lake Superior division destined west of Staples, is also brought to Staples, is it not?

A. Yes, sir.

Q. And when that freight is brought to Staples, there is a new arrangement of the freight so assembled at Staples which is destined west of that point, is there not?

A. I can't answer that unless you will explain what you mean by "new arrangement."

Q. There is a new arrangement of the trains for the pur-

pose of transportation west?

A. There may be and there may not be.

Q. Is it not true that your regular through freight train destined west which leaves Staples daily originates at Staples?

A. Why, we start, out of Staples, as a new train on that western division, but the actual cars in the train don't originate at Staples.

Q. No, and if, by chance, the freight destined for the West were all in one solid train at Staples, and that train were of the right size and contained nothing else but the character of freight which would be put in a through train, there would be no rearrangement necessary of the cars in the trains?

A. No, sir.

Q. But, in practice, Mr. Elliott, that doesn't happen, does it?

A. Very often.

Q. What do you mean by "very often?"

A. Well, I mean that we probably have trains that come into Staples and go out of there without doing anything but changing engines and way-cars; sometimes 80 per cent of them; sometimes it runs down as low as 25 per cent.

Q. Are you willing to say that, in your opinion, 25 per cent of the freight trains arriving at Staples are moved West from Staples without a rearrangement of the train?

A. I never checked it up on the train-sheets, but I should think that that was probably true.

Q. Well, if you have never checked it up, have you any judgment on the question?

A. I have a general judgment of a man that knows more or less about the way our business moves, about the coals coming in from the Head of the Lakes and the merchandise from St. Paul and Minneapolis. We have four or five through freight trains a day that we don't pull a coupling on them

until they get to Livingston, Montana.

Q. Is it not a fact that much more than 75 per cent of the trains arriving at Staples from the East are rearranged before any of the cars are moved West?

A. I shouldn't say you could fix a percentage that would govern every day in the year. Some days you may have a lot of through freight trains that were not touched except, as I say, to look over the train and put the engine on and the way-car; other days there would be a considerable number of trains that would come in and have to be put together.

Q. But, however that may be, Staples is the point at which the freight destined west of there is assembled from the St. Paul division, the terminal division and the Lake Superior division?

A. That all comes into Staples.

Q. And at Staples the trains are made up, are they not?

A. Some of them are.

Q. But you will not say what percentage of trains are not made up?

A. I would not feel competent to give accurate testimony on that.

Q. Leaving Staples, there is a train, regular time freight, known as the through freight, is there not, leaving there daily?

A. Three to seven of them.

Q. And the next division point upon the line is Dilworth?

A. That is correct.

Q. Now, at Dilworth, in the same manner, all freight originating upon the branches leaving the main line between Staples and Dilworth and which is destined west of Dilworth is assembled at Dilworth?

A. No, sir.

Q. Where is it assembled?

A. Some of it goes due west to Oakes and then up to Jamestown and that way.

Q. Where is Oakes?

A. Right here, (indicating on map).

Q. It either is assembled at Jamestown or at Dilworth?

A. Neither; if it is loaded on the Fergus Falls line going West, it goes out through Oakes, and then goes up to Jamestown; we don't haul it back to Wadena and then around that way.

Q. But the freight which is not brought upon those branches to Jamestown is brought first to Dilworth and assembled there, is it not?

A. Yes, sir, that is correct.

Q. And at Dilworth, each of the trains is rearranged, or may be rearranged, in the same manner as we found at Staples, is it not?

A. To a very much less degree; there would be very little rearrangement at Dilworth.

Q. But it is a point at which the trains may be rearranged?

A. It is possible there would be some slight switching there.

Q. Now, that is, as I understand it, your testimony when you were upon the stand some weeks ago, that each operating division of the road is arranged for the purpose of maintaining a through train upon that division?

A. That is substantially correct.

Q. Now, without pursuing the subject any further, the same character of services may be rendered at each of the divisional points upon the line of the road?

A. Yes, sir.

Q. And that would be true with regard to freight coming East as well as with regard to freight going West?

A. Yes, sir.

Q. As a regular, definite, certain proposition, then, the

term "through train" may only properly be applied to a train over one division?

A. Well, you could apply it that way if you want to, yes.

Q. Well, is that not fair?

A. I don't say it is fair or unfair. A through freight runs certainly over one division; it may run over two or may run over three.

Q. Well, Mr. Elliott, why is it that, on your direct examination, you gave your views upon what was fair or unfair so freely, and now, when I ask you, that you will not do it? I am not asking you any insulting questions.

A. No, sir, I don't so interpret it at all.

Q. It is a perfectly proper question, isn't it?

A. Absolutely proper.

Q. Well, then, isn't it true that the term "through train" if that term is to be used as to a definite certain proposition, it can only be applied to a train traversing one division of the road?

A. Or more; we would call it a through train if it went from St. Paul to Livingston, and we would call it a through train if it went from St. Paul to Seattle.

Q. Yes, that is true, but in all of those matters there is a definite term which can only be applied with certainty always to one condition of things, and the only certain through train that you have upon your road is a train which is through as to one division?

A. As I say, it is through as to one division *or more.*

Q. There are trains which are absolutely through as to one division, are there not?

A. Why, I want to be absolutely fair, Mr. O'Brien,—you seem to think I don't,—

Q. Well, now, I will explain what—

A. —I don't know that I understand what you mean. I

will try to explain, if you want me to, what I consider is a through train.

Q. Possibly it is better for me to explain what I mean.

A. All right.

Q. There are trains leaving Northtown Junction and running to Staples in which it is proposed, when that train starts, that there will be no change of cars upon that train unless under some extraordinary circumstances?

A. There are.

Q. And those trains do habitually run through solid from Northtown Junction to Staples?

A. That is correct.

Q. And the usual practice of that train and the usual course of that train making it a through train as to that division, should be described as a through train upon that division, should it not?

A. I agree to that.

Q. Now, whether or not any of the regular, ordinary trains upon your road run through more than one division, depends upon the ordinary circumstances of travel upon your road, does it not?

A. It depends upon the volume of freight that we have on the road; it has nothing to do with the travel.

Q. Well, that is right, it depends upon the ordinary conditions for transporting freight and the ordinary amounts of freight then upon your road?

A. Yes; we try to make up our trains so as to load each one to its capacity, as I tried to explain Friday.

Q. In other words, if your through train on the division between Northtown Junction and Staples is interrupted, it is because of some unusual, extraordinary and unforeseen circumstance?

A. No, I wouldn't say that.

Q. Because of some unusual circumstance?

A. No, sir; we have some things that we take into account that are not unusual and not unforeseen.

Q. Well, now, is that consistent with what you said a moment ago, that the ordinary course of your trains was that they run through?

A. Yes, sir, perfectly consistent.

Q. Anything that isn't ordinary is unusual, is it not?

A. We have certain trains that run through without ever breaking bulk; we have other trains that will drop one car off at Little Falls and go on. Those are foreseen circumstances.

Q. You have trains which, in the ordinary course of business, are run solid from Northtown Junction to Staples?

A. Yes, sir.

Q. You have no trains which, in the ordinary course of business, are run solid over any two divisions?

A. Yes, sir.

Q. Is not that an unusual condition, when a train runs solid over more than one division?

A. No, sir.

Q. Do you know how many, or what percentage of your trains, do move solid over more than one division?

A. I think to-day we are running three trains solid from St. Paul as far as Livingston, three every day.

Q. In which there is no change?

A. No change.

Q. No change in cars. Do you know what trains those are, how they are designated?

A. I do not, no, sir.

Q. But you think that you are running three solid trains from St. Paul to Livingston?

A. I think we have two what are called Coast-manifest trains, that run solid that far, and one Montana-manifest train that runs that far.

Q. Have you, within the last six months, run any trains

solid from St. Paul to Livingston?

A. I think so; I can't tell you.

Q. Do you know?

A. I don't know by an examination of the train-sheets.

Q. Even if your train runs solid from Staples to Livingston, is that the point where your train is made up?

A. It depends entirely on the bulk of business that comes from Duluth, but we generally—

Q. What is the freight that you are hauling to Livingston—

A. It is manufactured articles, and—

Q. —which originates in St. Paul and requires three solid trains a day?

A. Well, we have merchandise, manufactured articles, and products from Illinois, Iowa, Pennsylvania, New York, Atlanta, Georgia, Jacksonville, New Orleans.

Q. Did you not tell me, a moment ago, that all of those cars were assembled at Staples and the train made up at Staples?

A. No, sir, I told you they were assembled at Northtown Junction.

Q. And reassembled again at Staples?

A. No, sir, I told you that the engine at Staples was taken off and the way-car taken off and a new engine and new way-car put on.

Q. Now, would it surprise you, Mr. Elliott, if you ascertained that you had not had a single train, in the last six months, from Northtown Junction to Livingston, in which the identity of the cars remained the same for that entire haul?

A. Yes, sir.

Q. That would surprise you?

A. Yes, sir.

Q. You haven't examined any of the train-sheets for the purpose of determining that fact?

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A. No, sir.

Q. What is that?

A. No, sir.

Q. Now, if, as a matter of fact, you have no such trains as that it would show that many of your conclusions that you have arrived at with regard to the long and short-haul cost were wrong, would it not?

A. No, sir.

Q. That wouldn't make any difference?

A. Not the slightest

Q. Then you think that it is entirely immaterial whether the train would run solid from St. Paul to Livingston or only solid from St. Paul to Staples and there be rearranged and run solid to Dilworth, and there be rearranged and then run solid to Billings, and there rearranged and from thence on to Livingston?

A. No, sir, I don't think it is immaterial.

Q. You said it would not make any difference, in your judgment, as to the cost of the long or short-haul; what do you mean by saying it would be immaterial?

A. I mean this: that the putting in, perhaps, of one or two cars at Staples, or one car at Jamestown, or one car at Mandan, would not materially affect the general result of the through train service and would not materially affect my judgment as heretofore expressed. In a general way, we make up these trains solid at the Twin Cities, and they go forward. I may be incorrect in saying that we have volume enough of business to run three solid trains every day. My general information, from talks with the operating officers of the Company, is that we have had such trains that have gone solid. Now, I have no doubt an examination of the train-sheets might show that, here and there, there was a car put in or taken out; but in the main they were obliged, in order to handle the Pacific Coast business, to run one or more Coast trains,

and to run one or more Montana trains, and sometimes we run another train that runs through to Spokane.

Q. You can't haul the same size trains on the different divisions of the road, can you?

A. No, sir.

Q. That, of itself, requires a rearrangement of the train on different divisions?

A. Not of these fast trains.

Q. Do you haul the same number of loaded cars in a train on the mountain divisions that you do as between Staples and Dilworth?

A. Of the fast freight, yes, sir.

Q. So that there is no necessity for rearranging the trains on that account?

A. No, sir.

Q. Then the fast freight is hauled in trains which don't require the maximum power of the engines attached to them on such a division as the Dilworth division?

A. They have to have the big engine to make the fast time.

Q. Now, you say that don't make any difference, in your judgment, if the train was rearranged at each of the divisional points?

A. No, I beg your pardon, I think I didn't say that; I said I thought it would make no difference if one or two cars were put in or taken out at Mandan or Glendive or Jamestown.

Q. It might be just as much expense to take one car out of a train as to take twenty out of it, might it not?

A. I think not.

Q. Might it not?

A. Well, everything is possible. I think it would surely cost more to switch twenty cars than to switch one.

Q. Why?

A. It would take more coal and more wear and tear on

your track, more danger of breaking your cars, more danger of breaking up the freight, more danger to your employes, more delay.

Q. Then, upon the other hand, it might cost more to switch one car than twenty?

A. Well, it is barely possible it might, but not probable.

Q. It would depend somewhat on how the cars were arranged in the train, would it not?

A. Yes, sir.

Q. So that my assertion or question to you should be answered affirmatively, that it might cost as much to switch one car as twenty?

A. I say it might; it would not, in practice.

Q. Is it not true that the stopping of the train, the rearrangement of it, even to the extent of dropping one car or taking on another car would bring about most of the expense that you have spoken of?

A. No, sir.

Q. It would have to be a complete annihilation of the identity of the train, would it?

A. I do not say that, but let me give you an example: The through train destined to the Pacific Coast leaves Northtown Junction with forty cars, we will say; it goes through Staples; for some reason there is one car at Staples that wants to be put in that train to go West; the train has had to stop at Staples in order to have a new engine put upon it and a new conductor and way-car. The one car waiting at Staples is put on the head end of the train and then the engine is put on and the train goes on its westward course. If you went to work and tore that train all to pieces and reclassified it, it would cost a good deal more than to put this one car on the head end of the train.

Q. If, however, as a matter of fact, the ordinary course of business is that freight destined to the Coast is carried in

trains which are rearranged to a greater or less extent at every division point, your illustration would not be proper as showing the actual facts, would it?

A. Well, if the circumstances you say are the only ones that are in existence, then my illustration would not work.

Q. Now, you keep the accounts of each operating division separate, do you not, in your accounting department, Mr. Elliott?

A. We keep certain expense accounts separate.

Q. What ones are not kept separate?

A. We keep no earnings account separately.

Q. The expenses are kept separately, are they?

A. We attempt to make a subdivision for our own purposes of the expenses on each superintendent's division, so as to give him something to compare his own results by, month by month.

Q. Is it not true that freight which is transported upon the through trains over one entire division is carried at the minimum of expense?

A. Yes, sir, I think so, so far as transportation expenses are concerned.

Q. So that, if we were to endeavor to classify the freight the transportation of which was least expensive, we would take that freight which at least traversed one entire division?

A. Well, we would have to take a good many things into consideration. We might have freight going over one entire freight division, loaded freight moving entirely in one direction and nothing coming back, having an empty haul entirely in one direction and a loaded haul in the other direction. That would not be the cheapest freight.

Q. No, and it would not be the cheapest freight, so far as that particular haul was concerned, if a severe accident or wreck occurred to the train or a half of the freight was burned up which you had to pay for?

A. That is right.

Q. Now, of course, I think you may safely assume that we all realize that there are exceptions to every rule; what I am endeavoring to find out is whether or not it is fair to say that freight which is transported at least over an entire division is carried at the least expense.

A. Well, I was trying to explain to you that it would be unless you would have an empty haul all the way back.

Q. In the absence of exceptional circumstances, that is true, is it not?

A. Well, I should say that freight which is hauled the whole length of a division is handled much more economically than when it is only hauled a part way. I think I stated that last week.

Q. Now, if it is true that there is a difference in the cost of transporting through freight and local freight, is it not true that through freight should be considered freight hauled over an entire division and local freight freight hauled less than one division, as to that division?

A. That is true as to that particular division, yes.

Q. In other words, if we are ascertaining the cost of operating a particular division of the road, through freight is the freight which passes over the entire division, local freight is freight that passes over less than the entire division?

A I am perfectly willing to assent to your definition.

Q. And when a train or freight traverses an entire division, you would expect the entire expense of moving that freight to be duplicated upon each successive division which it traversed if the length of the haul and the conditions of the haul and the character of the train were the same?

A. And the character of the railroad the same, and the weather conditions and the amount of empty cars that were coming in the other direction, all of the conditions.

Q. Consequently, if a train destined for Seattle left North-

town Junction and was hauled solid to Staples, and from Staples was hauled solid to Dilworth, in the absence of a difference in the length of the haul, in the character of the roadway, in the character of the weather, you would expect, mile for mile, the same cost upon each division?

A. Well, I would expect that that train would cost no more for transportation if the railroad was in exactly the same condition and the weather in exactly the same condition and the cars were exactly the same; I would expect the transportation cost would be substantially the same.

Q. So that, per ton mile, there would be no saving in expenses from that train going to Dilworth rather than stopping at Staples?

A. Well, it would cost more to go to Dilworth; it wouldn't be a saving hauling it a hundred odd miles more.

Q. I said per ton mile.

A. Well, the cost per ton per mile probably would be substantially the same if all of the conditions that you speak of were exactly the same.

Q. Now, Mr. Elliott, there is no difference in the cost of transporting *per se* interstate freight as compared with state freight?

A. None.

Q. Or *vice versa*?

A. No, sir.

Q. The difference in the cost is made up entirely in the manner in which the freight is handled, is it not?

A. Well, it is made up in the method that I tried to point out when I was a witness last week; all the various conditions come in.

Q. In your testimony given last week you referred constantly to the long-haul interstate freight?

A. Yes, sir.

Q. Did you mean by that to classify in your mind inter-

state freight as between freight which was transported for a long distance and interstate freight which was transported for only a short distance, or did you use the word "long-haul" inadvertently?

A. No, I used the expression "long-haul interstate freight" because, in the main, our interstate freight is long-haul. We have some short-haul interstate freight, and we have a very limited amount of state freight that might be classified, perhaps, as long-haul.

Q. Then when you in your testimony used the term "long-haul interstate freight" or "short-haul local freight," you did it for the purpose of referring to a particular kind of interstate freight and a particular kind of state freight?

A. Yes, sir.

Q. And you were not attempting to compare interstate business generally with state business generally?

A. Not in that particular part of the testimony.

Q. Do you know what portion of the tonnage carried by your road upon local trains in the state of Minnesota is interstate freight?

A. No, sir.

Q. Nor what proportion of the tonnage carried upon those same trains is state freight?

A. No, sir.

Q. Do you know what proportion of the tonnage carried upon through trains—that is, trains extending over at least one division of the road—is state freight?

A. I do not.

Q. Or what proportion is interstate freight?

A. I do not.

Q. When you were comparing the cost of interstate business with state business, you confined your testimony to that character of interstate business described by you as long-haul

interstate business which is carried at the minimum of expense?

A. Yes, sir.

Q. And when you spoke of the state business, you referred exclusively to the short-haul local intrastate business, being the character of freight that is carried at the very highest expense?

A. Yes, sir.

Q. And your conclusions as to how much more the state business cost than the interstate business, were based entirely upon your comparison between the most expensive state business and the least expensive interstate business?

A. No, sir; my conclusions are based upon my general experience as a railroad officer.

Q. Did you not say in your testimony that, in your judgment, the short-haul intrastate business cost per ton mile from three to six or seven times as much as the long-haul interstate business?

A. Yes, sir.

Q. Were you not at that time comparing the most expensive class of state business with the least expensive class of interstate business?

A. That is correct.

Q. You just said you were not, that you were depending upon your general experience.

A. You asked me how I came to my conclusions; I told you. When you talked about comparisons I was comparing. But the short-haul interstate business is just as expensive as the short-haul state business.

Q. You have made no statement, then, in your testimony, as to how much more the state business, as a whole, costs per ton than the interstate business, as a whole?

A. I have not made such a statement, no, sir. I said this, that the—

Q. And you are unable to make any such statement as that, are you not?

A. May I answer the question?

Q. Well, will you answer my question: You are unable to make any such statement as that, are you not?

A. I stated, in the early part of my testimony, that I knew of no way that you could subdivide the accounts so as to show the exact cost of the state business and your interstate business.

Q. And you have made no attempt to subdivide it?

A. I have made none, no, sir.

Q. And you are at this time unable to say what it costs you to transact the freight business, within the state of Minnesota?

A. I am unable to say, sir, yes.

Q. And you are unable to say what proportion of the revenue derived by the Northern Pacific from the transportation of freight entirely within the state of Minnesota is net?

A. I can't say. We make certain estimates but I can't say that they are correct.

Q. Now, of course, you haven't attempted to testify in this case without having at your disposal every avenue of information possessed by the Northern Pacific Road?

A. Well, they are at my disposal; if I wanted to spend the time to look at every figure I could do so.

Q. And whatever estimates and calculations upon those points are made under your direction, are they not?

A. Theoretically, yes.

Q. So that, it is fair to presume that, if you are not able to say what profits you realize from your Minnesota business, nobody else is in your Road?

A. Well, I don't know; other people may be smarter than I am. I might be able to say if I spent two or three years doing nothing else.

Q. Do you or do you not claim that these rates are confiscatory, then?

A. I claim that my experience in railroad business is such that the local rates in the state of Minnesota are too low to pay any reasonable compensation to the railroad.

Q. Well, in the Complainant's bill in this case we find the statement that if these rates were applied or could be confined exclusively to Minnesota, they probably would not be confiscatory.

Mr. How: That is objected to as not stating the fact. There is no such averment in the bill of complaint unless it has been amended without my knowledge.

Mr. O'BRIEN: Can you recite that, Mr. How? and I will incorporate it in my question.

Mr. How: Paragraph 14 reads: "Although, could the effect of said respective acts and orders, and each of them, be confined strictly to the traffic of the defendant Company wholly within the state of Minnesota, said Company might be left with a fair income as regards its whole system, still each of said acts and orders does operate and will operate necessarily and directly upon the interstate commerce of said Company, and they are and each of them is a regulation of such commerce, in violation of the exclusive power granted to Congress by the constitution of the United States." Here is the one that I had in mind (Paragraph 13): "While the immediate effect of said acts and orders, if that effect could be confined strictly to the state of Minnesota, might leave the defendant Company a fair revenue upon its whole system, still, if the principle upon which the tariffs complained of are made and which is before described be applied to the long-haul interstate business of said Company," etc., those are the only two allegations made.

Q. You heard the first extract from the bill of complaint which Mr. How read, did you?

A Well, I have read the first part of paragraph 14 in the bill of complaint.

Q. Do you agree with that?

A. Do I agree with it? Yes, sir, I agree with that.

Q. Mr. Elliott, I would like you to consider a shipment of merchandise of the first class in less than carload lots from Chicago to some point upon your line east of Staples; that freight would be delivered to you at the Minnesota Transfer, would it not?

A. A carload, did you say?

Q. I said less than a carload.

A. One shipment?

Q. Yes.

A. It might be delivered at Minnesota Transfer, or that car might be taken straight through to our Northtown Junction transfer house, or it might come to St. Paul.

Q. It would be delivered to you at some one of those points that you have mentioned?

A. Yes, sir.

Q. Now, the article would then be transported upon your local train to the point of destination, would it not?

A. Presumably, yes, sir.

Q. That would be an interstate shipment?

A. That is correct.

Q. The rate charged by you from the point where you received the article to its destination in this state would be the same as you would charge for a state shipment originating at the same point and delivered at the same point?

A. I think it would, yes, if it was this side of Staples; I understood you to say to a point this side of Staples.

Q. Yes, this side of Staples.

A. Yes.

Q. That shipment would be carried upon a local train, would it not?

A. Yes, sir.

Q. And, so far as the character of the service rendered by your road in the transportation of that particular article, it cannot be distinguished from the service which you would render to a similar article constituting intrastate freight?

A. It would be substantially the same service on both shipments.

Q. You are unable to say what proportion of your local trains were loaded with interstate freight of that character?

A. I am unable so to say.

Q. That matter could be ascertained, Mr. Elliott, could it not?

A. Not as to the past.

Q. Has it not been ascertained?

A. It may have for some one or two months where particular accounts were kept.

Q. Mr. Johnson in making his correction in this case as to the total amount of state and interstate freight, has he not ascertained that very fact?

A. He has ascertained how much state freight there was and how much interstate, but he has not ascertained how much state freight was hauled on a given freight train and how much interstate freight was hauled on a given freight train.

Q. That could be done, could it not?

A. Not as to the past.

Q. Not as to any of the past?

A. I don't believe it could.

Q. Would not your records show that as to any particular period?

A. I think not.

Q. Neither your train-sheets nor your way-bills nor your abstracts, station abstracts,—none of them will show that?

A. I don't believe, Mr. O'Brien, it would be a physically

possible thing to go back and say in what train each less-than-carload shipment was handled.

Q. Did you ever try?

A. I never did.

Q. You know that that has been a question that has been debated in this case for nearly a year now?

A. I don't know whether it has or not.

Q. Have you made the attempt with regard to any of the freight transported since the question first came up and the present time?

A. I am not advised as to whether we have made that effort or not.

Q. It would be very valuable in ascertaining the proportion of the cost of local trains which should be borne by interstate commerce and that borne by state commerce, would it not?

A. I should think it would be of very little value.

Q. You think that would be of very little value. In other words, you think that the only way of ascertaining this question is to take the judgment of practical railroad men?

A. I think that is by far the best method.

Q. And the less data of a definite kind those gentlemen have the more unbiased and clear their judgment is likely to be?

A. I didn't make that statement.

Q. Now, if that is true, Mr. Elliott, it puts the question of the cost of carrying on railroads in a class all by itself, does it not?

A. I don't think I understand the question. What other class?

Q. Do you know of any other matter that may be the subject of investigation, of inquiry, in which definite exact information is not superior to the general judgment of an individual?

A. I think there are a great many questions in the agricul-

tural development of the country that are settled better upon the general judgment of the individual than upon any exact method of calculation.

Q. You think that a farmer would get better information as to the different results arrived at by him if he kept no records as to what those results were?

A. No, sir.

Q. If a person desired to ascertain what return he got from seed of a certain character, he would have to keep a record of what the yield was, wouldn't he?

A. Yes, sir.

Q. And, of course, in this matter of ascertaining the cost of different kinds of business, there is no difference between a railroad management and any other business, is there?

A. The railroad business is very similar in all its underlying principles to other business, but I take it that a farmer who had a farm that was half in one state and half in the other, would not spend very much time trying to determine whether the plowing cost him more in one state than it did in the other.

Q. Well, now, you notice, Mr. Elliott, that we have, to a certain extent, eliminated state lines in this investigation now.

A. Yes, sir.

Q. You have got your division running from the Head of the Lakes to Staples, there meeting a division running from Northtown Junction, and then those two in a division which is at Dilworth; if it is true that you can ascertain the cost of operating each division, and if it is true that the economy of service is arrived at as to freight which passes over an entire division, there ought not to be any great amount of difficulty in ascertaining the cost of transporting your business in the state of Minnesota, and, as a matter of fact, you have ascertained that and so reported it, have you not?

A. We have got the subdivision of the gross expenses here.

Q. In Ex. 79 you have got the gross expenses?

A. Yes, sir.

Q. Charged to Minnesota?

A. Yes, sir.

Q. Now, you have offered that as a correct statement, have you not?

A. We have offered it as a statement made up on a certain basis.

Q. Well, you believe it to be correct, don't you?

A. Correct on that basis.

Q. You believe that correctly states your expenses in Minnesota?

A. Well, I don't think you can say absolutely that any statement of operating expenses between states is necessarily absolutely correct. Here is a statement made up in accordance with the views of the Commerce Commission and the state authorities.

Q. Is it your best judgment it is correct?

A. It may be correct and it may not be correct.

Q. Is it your best judgment as to what the expenses are in Minnesota?

A. It is as good as any method.

Q. Do you believe that correctly shows the expenses in Minnesota?

A. Well, I believe it shows it fairly well.

Q. Now, if we accept that as being the amount of your expenses in Minnesota, do you know of any reason why the Court should not do so?

A. I don't know; I cannot speak for the Court.

Q. Well, do you know of any reason why we should not all accept it as the amount of your expenses in Minnesota?

A. No, sir, I don't know.

Q. Then we have got the expenses in Minnesota, and the farmer whose farm crosses a state line has nothing to say

to the decision of this question.

A. This includes all the business that we do, both state and interstate.

Q. So that, in Ex. 79, we have a statement of what you claim the expenses are in Minnesota?

A. For all of our business, state and interstate.

Q. For all of your business, I understand that perfectly well. We have a statement of what you claim all of your expenses are in Minnesota. Now, in the state of Minnesota, freight can be divided into state and interstate, can it not?

A. Yes, sir.

Q. You have not attempted to present the cost of either of those?

A. No, sir.

Q. And you, I think, said a moment ago, that interstate freight may be properly divided between through and local freight,—the interstate freight in Minnesota?

A. Well, under our way of expressing it we would call it a local shipment from Winnipeg Junction to Casselton; that would be a local interstate shipment.

Q. And there is also the through interstate shipment?

A. Yes, sir.

Q. There is also the through state shipment?

A. To a very limited extent, yes.

Q. And there is also the through local shipment?

A. Well, I misunderstood your first question, then.

Q. I said through state.

A. Well, I say there is a limited amount of what you would term through state freight.

Q. Without regard to whether there is a limited or an unlimited amount of it, there is what is known as through state business and local state business?

A. Yes, sir.

Q. You have already said that the mere fact as to whether

freight was state or interstate business made no difference in its cost.

A. None.

Q. So that the proper division of these expenses which you present in Ex. 79 should be upon through business and local business, should it not?

A. I don't know what your definition of "proper" is. I couldn't say what was in your mind as to what is the "proper" division.

Q. The real difference in the cost of transporting freight comes from the fact as to whether it is through or local business as we have defined those terms, and not from the fact as to whether it is state or interstate business?

A. The real difference comes as to whether it is local short-haul business or longer through-haul business.

Q. Without regard as to whether it is state or interstate?

A. Without regard as to whether it is state or interstate.

Q. Therefore, if you had ascertained the proportion of the local freight which was interstate and of the local freight which was state, the proportion of the through business in Minnesota which was interstate and the proportion of the through business in Minnesota which was state, you would have arrived at a much better basis for determining the cost of carrying the freight than by any means which you have adopted, would you not?

A. I don't know what the figures would show. I don't know whether we would have arrived at any better basis or not. I never saw any figures, so I couldn't express an opinion.

Q. Is there any portion of your road as to which your accounts are kept separately, upon which there is only one class of freight hauled?

A. I think not.

Q. Take, for instance, the branch from Little Falls to

Morris, is there more than one character of freight trains upon that branch?

A. No, sir.

Q. Is the cost of maintaining that branch kept separately?

A. I couldn't say without reference to our books. I think it is, but I am not certain.

Q. Now, there is no freight that is through upon that branch except as to the branch itself, is there?

A. By through you mean that it starts and never stops?

Q. No, I mean through that goes over one entire operating division of your road, Mr. Elliott. Just as you said I agreed, a few minutes ago, that we would call through freight.

A. Well, there may be freight over the Little Falls and Morris branch that would go to Chicago or go to the Twin Cities or go to Superior, or even go to Ashland, Wisconsin.

Q. But is there any one operating division of your road as to which freight between Morris and Little Falls could be through? There is no operating division included between those points, is there?

A. No, sir.

Q. And there is only one character of freight train there, isn't there?

A. That is all.

Q. Isn't it true that all of the freight upon that branch comes under the designation of local freight whether it is state or interstate?

A. Practically, yes, sir; that is right.

Q. Is there anything in the character of the Northern Pacific road which makes it more expensive to transport freight upon the main line of the road than upon that branch?

A. No, sir.

Q. Is it not true, as you stated in your examination last week, that the highest relative expense is found upon the branches?

A. That is right.

Q. Now, if you would take all of your branches in the state of Minnesota, or all of your branches which touch the operating divisions in the state of Minnesota, and ascertain that all of the freight carried upon those branches is local freight, and ascertain the total cost of transporting it, would you not have arrived at the very highest cost of transporting local freight in the state of Minnesota?

A. You probably would have, yes, sir.

Q. And if you applied that cost to the total local freight in the state of Minnesota which was intrastate, you would find the total cost of moving that number of tons of intrastate freight, would you not?

A. If it was all intrastate freight.

Q. Yes, that you applied it to.

A. Well, I don't know how you are going to separate the inter from the intra.

Q. Mr. Elliott, is it not true that we have ascertained the amount of intrastate freight in Minnesota?

A. I think you have.

Q. Isn't that stated in the exhibits which you presented last week?

A. Yes, sir.

Q. Isn't it stated in Mr. Johnson's exhibits, which he introduced several months ago?

A. Yes, sir.

Q. Well, then, why do you talk about whether we can ascertain the amount of intrastate freight?

A. We haven't found out the amount of intrastate freight handled on the branch from Little Falls to Morris, which was what you are talking about.

Q. You have not?

A. I say the witnesses haven't found out; we haven't found out what proportion of the freight handled on the Little Falls

to Morris branch is interstate freight and what proportion is intrastate freight.

Q. You haven't tried to find out, have you?

A. I have never tried, no.

Q. Now, of course, this interstate freight that goes upon that branch line is all separated down here on the terminal division, isn't it, it all originates with you upon the terminal division?

A. It may originate on the Little Falls and Morris branch. It goes both ways.

Q. That would be freight that would be destined outside of the state?

A. Yes, sir.

Q. But freight coming to the branch would all originate at the terminals, would it not?

A. Or at Duluth; it might originate up at East Grand Forks or at Grand Forks or at Jamestown.

Q. Are you familiar with the fact, Mr. Elliott, that, in the original report for one year (I forget now which year, a year or two ago,) of the Northern Pacific to the Railroad & Warehouse Commission, there was included as intrastate business a large amount of freight which was received by the Northern Pacific road at the Minnesota Transfer and at similar points, which originated outside of the states and was destined to points within the state, and that, Mr. Johnson discovering that error, subsequently segregated all of that business and presented a table here showing exactly the amount of intrastate business transacted by the Road?

A. Yes, sir, I am familiar with that; that is, I say familiar, I knew of that.

Q. Now, in the doing of that, this work of segregating the business originating at the terminals between state and interstate was done, was it not?

A. Yes, sir.

Q. And you don't understand that there is any difficulty in determining how much and which character of freight hauled in the state of Minnesota was interstate and state?

A. It was only a question of mathematical labor and going over a very large amount of papers.

Q. Now, don't you think that if that was done, you would have in your possession information and statistics which would enable you to form a better judgment as to the relative cost of state and interstate business than you could without considering any such statistics?

A. My own opinion is that it would be of very little value, Mr. O'Brien.

Q. Well, it would at least be a definite fact, would it not, Mr. Elliott?

A. It might be.

Q. It would be something that could be checked with the pencil, and that isn't true of the statement that is founded merely upon individual judgment?

A. I think you could do just as good checking up of the statement of an individual judgment with a pencil as you could of the other statement, making a pencil-mark on each statement.

Q. Now, in order to put the matter beyond dispute so that we can agree on terms, if possible, do I understand you to say that, in ascertaining the cost of freight between through and local freight, freight passing over an entire division should be, as to that division, classed as through freight, and freight passing over only a portion of one division should be classed as local freight?

A. Yes, sir, I agree to that.

Q. Now, for that same purpose let us imagine a shipment of freight originating at Northtown Junction, on the terminal division, and destined for a point between Staples and Dilworth, upon what character of train would that freight be

transported from Northtown Junction to Staples?

A. That freight might go on a so-called through freight that went straight through to Staples, or it might be put on a way-freight that did local work between Staples and Northtown Junction, and when it got to Staples it would then go West in the local freight from Staples.

Q. How would you class that freight—as through or local?

A. If it went on a through freight from Northtown Junction to Staples, under the definition as we have outlined it it would be through freight as to that particular division as far as Staples. If it went on this local way-freight, as some of it does, why, you could call it local freight as far as Staples.

Q. In addition to the other work which is done by the local way-freight trains, is it not true that those trains pick up at the various stations along the line the freight awaiting shipment at such points?

A. Yes, sir, they would pick up freight at St. Cloud, for example, and take it to Staples or to Little Falls.

Q. In other words, it is the local trains which perform the service of assembling the freight originating along the division at the succeeding divisional point?

A. In the main, yes.

Q. And a very large proportion of the work of switching done by the local trains is caused by that necessity, is it not?

A. Well, the switching is caused on local trains, as I tried to point out last week, by the setting out of the short-haul business at the various stations, and in turn it is caused in part by the picking up of freight that may be at those stations to be forwarded. The switching is caused by the in-business and the out-business, both.

Q. Now, a great deal of the freight that is so taken by the local trains and delivered at the division point is carried over the entire next division, is it not?

A. I couldn't say the proportion; I could only give you

these averages that I gave the other day, that our local freight averages about 104 miles and through freight 485 miles.

Q. Is it not true that a great deal of the freight which is thus brought to a division point by the local trains is transported upon through trains across the entire succeeding division?

A. As I say, I can't give you the exact proportion.

Q. I didn't ask you for the exact proportion, I asked you if there is a great deal.

A. Well, there is some, of course. I don't know whether it is a great deal or how much it is; for instance, you pick up the stuff at St. Cloud and take it to Staples, it might be going from Staples to Fargo, and it might be going from Staples to Winnipeg Junction.

Q. It might be, but, on the other hand, there is a large amount of the freight of the character that I have described, is there not?

A. There is some; I couldn't tell, without a great deal of study, as to the amount.

Q. Well now, is the traffic in wheat between Staples and Duluth quite heavy?

A. At times quite heavy.

Q. That nearly all originates west of Staples, does it not?

A. Quite largely. I should say that "nearly all" is approximately correct.

Q. Now, when that originates along the line between Dilworth and Staples, it is picked up by the local trains and delivered at Staples?

A. Yes, sir.

Q. And when Staples is reached, solid through trains for the transportation of wheat are formed, are they not, and run to Duluth?

A. In the heavy wheat-moving season we make up solid trains that go to Duluth and Superior, both, endeavor to make

them as big as we can and load them as heavily as we can.

Q. In estimating the earnings of different trains operated by the Northern Pacific Road, did you ever estimate the earnings of a train loaded with wheat to its maximum capacity from Staples to Duluth?

A. I never did, no, sir.

Q. The earnings of a train of that character would be very heavy, would they not?

A. They would be heavy compared with many other trains. That would be a very good train.

Q. Could you name any more profitable character of service per mile?

A. Well, a train of high-class merchandise might pay more; I would have to make a calculation to determine that.

Q. The number of tons of wheat transported in that manner within the state of Minnesota would be quite an important factor in determining the relative cost of the service in Minnesota, would it not?

A. Yes, sir.

Q. You have never ascertained that?

A. As I say, I never have gone through a computation of any given train between Staples and the Head of the Lakes.

Q. It would be impossible to arrive at a sound judgment as to the cost of transacting the business purely local to the state of Minnesota without ascertaining certain conditions of that sort, would it not?

A. Well, my judgment, Mr. O'Brien, is that, when you take all the conditions, as I tried to outline them yesterday, and consider the fact that our state business, *as a whole*, is relatively a short-haul business and that our interstate business, as a whole, is relatively long-haul business, it costs more to do the state business than the interstate; I did not undertake to make a computation of each train or each class of trains; I gave you the benefit of the best judgment that I had.

Q. And you say that, in your opinion, that is the only correct way of arriving at the cost of service?

A. In my opinion, it is the best way. You take those men that have spent their lives in the business and get the benefit of their judgment, I believe their judgment is as satisfactory as any mathematical system of calculation.

Q. Now, if that is true, correct supervision of rates by public officers is impossible unless those officers have the same length of experience, the same daily opportunities for observation as the officers of the railroad companies?

A. Well, that opens up, of course, a very large question, where each railroad officer may have his own personal opinions. My opinion is that, while there are a great many excellent men on the Commission, going through the work of what you call supervising freight rates, the result is not as satisfactory as if it were left to the supervision of the railroad officers.

Q. Well, I think I would agree in that in the broad way in which you put it; but "not as satisfactory"—to whom do you mean?

A. To the whole country.

Q. To everybody?

A. Yes, sir.

Q. Well, is it not true that your position results in the conclusion that proper supervision by public officers is, of necessity, impossible?

A. Well, I am inclined to think it is true. I have been of that conclusion for quite a number of years.

Q. And is it not true that the possibility of correct supervision is largely increased by the fact that these different items of information are not kept by the railroad company and are not segregated?

A. It may be true; I should doubt if it would help very much in developing the commerce of the United States and

the proper adjustment of rates in the United States to have a mass of figures of the character suggested.

Q. Well, is that from an examination of those figures, or is it because you have never attempted to keep them?

A. Well, that is from my opinion as to the methods of making prices. What you want in the United States, I take it, is the highest railroad development you can have and the lowest freight rates; and on the long run, in my opinion, as one officer of a railroad, you will have a higher development of railroads and a lower basis of rates without so much interference than you will have if you have all of this interference.

Q. Well, it is certainly true, is it not, Mr. Elliott, that, in the absence of the personal experience upon which you rely, the statistical information is absolutely necessary if a correct conclusion is to be arrived at?

A. Statistical information is necessary if you are going to attempt to make your rates purely on a mathematical basis.

Q. Therefore, if we assume that the ordinary public officer has not got the personal experience upon which he relies, and you keep your accounts in such a manner that it is almost impossible for him to obtain the statistical information to which I have been referring, the public officer is put in a position in which he can not intelligently regulate or supervise rates; isn't that true?

A. Well, I don't know whether that is true or not. I don't think he can make rates as well as these gentlemen that are in the business.

Q. Well, but if he has to have either the personal experience or the statistical information, and you withhold the statistical information, and the public officer hasn't the personal experience, he can't come to an intelligent conclusion, can he?

A. He could not come to an intelligent conclusion, in my opinion, unless he had the personal experience, also. That is, using the word "intelligent" in its broadest sense.

Q. Oh, yes, I don't suppose you mean that offensively.

A. Oh, no, not at all.

Q. But your position is that he could not come to an intelligent conclusion anyway?

A. I don't think he could come to as intelligent a conclusion as I say in the long run the railroad managers will come to if they adjust their affairs under ordinary commercial conditions.

Q. You don't think that the tendency of human nature which inclines one to obtain just as much advantage as he can exists in the case of the managers of railroads?

A. Yes, sir, I think it exists to a very marked degree, but that very tendency is going to make the railroad manager do everything he can to so perfect his railroad that he can do business cheaply and promptly and induce the very largest movement of commodities. Now, he cannot induce a large movement of commodities by constantly trying to raise his rates, and the whole history of the railroads of the United States shows that without this so-called supervision the rates have gradually been going down.

Q. The necessity for equal rates to build up communities fairly and protect the various individuals is just as essential to the success of the railroads as reasonable rates, is it not?

A. Yes, sir.

Q. Is it your opinion and judgment that the railroad companies did surrender the giving of rebates and the making of special rates until they were compelled to do so by law?

A. The railroads would have surrendered that in a very short time in the evolution of business.

Q. Well, they hadn't up to the time it was made a criminal offense?

A. No.

Q. Well, of course, I don't know whether they would have or not.

A. I put it on the broad ground, as I say, that, take the United States as a whole, the better railroad development, the better railroads, the better development of commerce, without so much outside interference with the methods—That is merely a question of judgment.

Q. Notwithstanding the fact that the Northern Pacific received of the public domain every odd section along the line of its road from Lake Superior to the Coast, for a distance of twenty miles on each side of that road, you still consider the public interference an "outside interference?"

A. Well, I consider it, if you want to use the word "outside," yes; I think the people that own the property and are responsible to the public for results for furnishing transportation, can be pretty generally left to safeguard the entire situation.

Q. Upon what theory is it that you imagine the railroads are justified in receiving these large land-grants and large public donations unless it is that they are serving the public?

A. Well, I was not here when the land-grant was made. I assume it was given to the gentlemen who received it in the hope that they would be willing to risk their time and energy and money in building a railroad, which they did,—and without any success, as you know, for a great many years.

Q. Did the original incorporators of the Northern Pacific risk any money?

A. Well, someone did; I don't know that the men that actually incorporated the railroad did, but there was a great deal of money put in, and the road, as you know, failed twice.

Q. Are you aware of how much the stockholders of the road had invested at the time of the failure in 1873?

A. No, sir, I have never studied up the past history of the Company.

Q. If the investment in stock at that time was so small as to be negligible, would that have any effect upon your

judgment with regard to the propriety of state interference?

A. No, sir, I think a railroad is a big business enterprise; it grows along with the rest of the country, it is entitled to share in the growth of the country.

RE-DIRECT EXAMINATION

By Mr. BUTLER:

Q. Mr. Elliott, can you indicate with approximate accuracy the location and length of the operating divisions on the lines of the Northern Pacific in Minnesota?

A. The so-called St. Paul division goes from Northtown Junction (Minneapolis) to Staples; I think it is about 140 miles; the Lake Superior division goes from the Head of the Lakes to Staples; it is 147½ miles; and from the Head of the Lakes down to the St. Paul terminal division.

Q. What is that called—the Duluth division?

A. No, that is all a part of the Lake Superior division.

The MASTER: Each is a division, isn't it?

Q. Each is a separate operating division, I take it?

A. No, sir, what we call an operating division,—the St. Paul division is one of them; the Lake Superior division has two important pieces, one from the Head of the Lakes to Staples and one from the Head of the Lakes down to the Twin Cities. The distance from the Head of the Lakes to the Twin Cities to the point where it gets into the St. Paul terminal divison is 141 miles. Then, on each one of those two divisions, included in the operating division, are various branch lines. Then the Minnesota division, the main-line part of it, from Staples to Dilworth, is 104.2 miles; and then, included in that operating division, are the lines from Winnipeg Junction to the Canadian boundary, partly in Minnesota and partly in North Dakota; and a branch from Wadena down to Oakes, North Dakota, partly in Minnesota and partly in North Da-

kota. Those are the three operating divisions within the state of Minnesota.

Q. What I wanted to get at was to compare the average length of division with the average haul on intrastate business as shown by Ex. 80, which is shown to be 104 miles and a fraction. Now, I take it from the figures you have given me that the average haul on the Minnesota intrastate business is less than the average length of an operating division.

A. Yes, sir, that is correct.

Q. Now, the average length on the interstate business which touches Minnesota is 485 miles, I believe?

A. Yes, sir.

Q. And that, on the whole, averages about three times the length of your longest division—a little over?

A. A little over three times, a little more than three times.

Q. The longest division you mentioned would be 147⅓ miles, from that part of the Superior division from Duluth to Staples; so that, on the whole, the average of the intrastate business in length of haul is less than one division, and on the whole it would therefore fall within the definition that you and Mr. O'Brien agreed upon as local business?

A. On the whole that is the case, when you take the average. As I tried to point out, you can get one local shipment that is much longer; you can get one interstate business that is much shorter than the average.

Q. Now, the average local haul on intrastate passengers is 35 miles?

A. 35.3 miles on local intrastate business.

Q. And interstate business touching Minnesota is 148 miles?

A. Yes, sir.

Q. So the interstate business in such case would average a haul about the length of your longest division?

A. Yes, sir.

Q. And the state haul on passengers would be about a fourth of that?

A. About a fourth of the longest division.

Q. In certain of the questions asked by Mr. O'Brien, that part of the cost called "transportation expenses" was referred to, and the cost of moving the traffic; I think it was indicated that, where freight moved wholly over one division, the minimum cost of movement was reached; was that your understanding of it?

A. Yes, sir.

Q. But now, did you intend by that expression "the transportation expenses" or "cost of movement" to include all of the elements which enter into operating cost?

A. No, sir.

Q. You intended to include only those elements which are embraced in the interstate commerce order with respect to the form of accounts which are there denominated "transportation expenses"—Is that the phrase?

A. Well, I intended to include quite a large number of expenses that are included in that classification; the train and engine and wages and fuel and things of that sort.

Q. The total operating cost on a haul over the division would, of course, include both terminal services in the state business?

A. Yes, sir.

Q. And if it went over to Livingston or Spokane, in the interstate business, there would be distributed to the number of miles of haul the same terminal expenses?

A. Yes, sir.

Q. So that the rate per ton per mile of operating cost would be lesser on a long haul embracing several divisions, than it would be on a through one-division haul?

A. The terminal expense in that case would be less per

ton per mile than in the case where they went over simply one division.

Q. So the long haul would take the less average cost per ton per mile for all operating expenses?

A. Yes, sir.

Q. Now, in your direct examination, if you will refer to page 3429 (Reporter's transcript) beginning at the bottom of the page, where you say "all lead me to the conclusion that the so-called local short-haul interstate business costs more from three to six or seven times as much as the so-called long-haul through interstate business"—by that statement did you mean to compare the average cost of the state business with the average cost of the interstate business?

A. That was my intention in making that statement in my direct examination last week.

Q. I want to refer you to page 3695 (transcript) of your examination when last upon the stand, about the middle of the page, to this statement: "Demands from communities and demands from various lawfully established bodies that the burden upon the railroad to meet these demands means that the local passenger train service will cost from 25 to 30 per cent more per passenger per mile," and ask you whether by that statement you meant that the average cost per passenger per mile of the state business in Illinois—was the percentage stated over the average cost per passenger per mile of the interstate business touching Illinois—referred to in the figure 149 indicating the longer haul for the interstate passenger business touching Illinois?

A. My intention in making that statement last week was to take the business as a whole and consider the average results.

Q. Now, in your cross-examination, something was said relating, as I understand it, to those figures which you gave in your direct examination, to the effect that, in giving those

figures, you compared the highest cost of the short-haul business with the lowest cost of the long-haul business. I am not clear just what form the questions and answers took, but I want to have you make yourself perfectly clear as to what you intended in that regard.

A. As I understood it, Mr. O'Brien asked me if I made such a comparison of the lowest long-haul business with the highest short-haul business; I made such a comparison in my mind, but my conclusions were based entirely on these averages which show that the local business is in the main very much shorter haul than the through; that is, the 104 miles is the average for the local and the 485 miles for the through. I did not base my conclusion on the fact that, taking the longest long-haul interstate business and making some estimate of that cost, then in that case the shortest local short-haul business would be three to seven times as much, but I took it all —all the business—the averages.

Q. So the figures you gave in the direct examination referred to the average of each?

A. Yes, sir.

Q. Reference was made to heavy trains, perhaps solid trains of wheat, in the heavy wheat-moving season, from Staples to Duluth or the Head of the Lakes. Now, is there any other point on your line where your Company procures large quantities of wheat so as to be able to move in heavy trains aside from Staples, that is, move a part of the way in heavy trains aside from Staples?

A. For a limited portion of the autumn we might have solid trains of wheat from Dilworth to Staples.

Q. How about Glenwood, that is a junction where the Soo road delivers to your road a large amount of wheat, is it not?

A. It has in the past, yes.

Q. It is now reaching Duluth itself, I believe?

A. Lately they have been delivering that freight at a place

called Henning; they don't bring it to Glenwood.

Q. Now, with respect to the character of the wheat moved in solid trains, as being state or interstate business: to get at that we have to take in the termini, where does it originate and where does it terminate, whether at Duluth or Superior, or is it all mixed together in the solid trains, wheat from Dakota to Duluth, wheat from Minnesota to Superior, wheat from Dakota to Superior?

A. The wheat from the Dakotas and from Minnesota points west of Staples, would all come down mixed together to Staples, and then at Staples the wheat that was destined to the Head of the Lakes would be sent in that direction and that destined to Minneapolis would come down over the St. Paul division.

Q. Now, as to wheat originating on the line of the Northern Pacific that is hauled a part of the way in the heavy wheat trains, where does it originate as respects the main line of your Company and the branches?

A. There is a limited amount of wheat that we get at points between Fargo and Staples, but the great bulk of it comes from branch-line points.

Q. And when picked up how handled—by through or local trains?

A. Mostly by local trains.

Q. So that, is it fair to say that, for the most part, the intrastate wheat moving on your lines in Minnesota is handled, in part, at least, by local trains?

A. Yes, I should say that the great bulk of it was handled once by local trains.

Q. And as respects the cars, the empty cars or cars taken out with loads which are loaded with wheat on return, how are they handled as respects through and local trains?

A. Well those cars at times are run in solid train-load lots from the Head of the Lakes to Staples and then they are taken

on local trains from Staples to their destination in Minnesota.

Q. Something has been said as to the method of keeping cost accounts, so-called; I think that is what is to be understood by the accounts referred to. I think you told us, in your direct examination, that you knew of no railroad company which undertook to separate the cost of doing the business between state and interstate business, either in the freight business or the passenger business in any state.

A. That is correct. I don't know of any.

Q. Now, the Interstate Commerce Commission prescribes the forms of keeping accounts?

A. Yes, sir.

Q. And are the accounts of your Company kept in accordance with the forms prescribed?

A. Yes, sir.

Q. And are they also so kept as to furnish readily the information which is currently and regularly called for by the Minnesota Railroad & Warehouse Commission in the form of the annual reports?

A. Yes, sir.

Q. It is a matter of law, and one that perhaps we ought not to ask the witness to testify to, but the ignorance of the law appears to make it necessary upon this point: Do you know whether or not either by a law or rule of the Commission the railroad companies are prohibited from keeping their accounts in other form than that prescribed by the Commission?

A. I think that is the law; if not, it is the order of the Commission that we must keep our accounts in a given way.

Mr. W. P. CLOUGH: That is the last provision of the Interstate Commerce Act, that when the Interstate Commerce Commission shall finally prescribe a method of keeping accounts, it is made a crime to keep any other form of accounts. Whether that final order has been received—I don't think it has, in full

yet—but that is the provision, that when it is in final form it is made an offense to keep them in any other form.

Mr. BUTLER: The Interstate Commerce Commission have made certain orders as respects keeping accounts; it is a volume—I think this is it that I have in my hand—and I would like the permission of counsel on the other side to furnish to the Master a copy of that. There have been three revisions, and perhaps some supplementary orders, and we want to be sure that we get the right one.

WITNESS: That is the last one.

Mr. BUTLER: May this be handed to the Master without offering it in evidence?

Mr. O'BRIEN: Oh, certainly.

Q. Among the elements of expense which you mentioned in your direct examination was that of maintenance of equipment. I think you pointed out the bearing of that item upon the cost of short-haul business as compared with the cost of the long-haul business referred to on Ex. 80. What percentage of your total operating cost is included under the heading Maintenance of Equipment?

A. About 21 per cent; that is the total operating expenses on June 30, 1908, about 21 per cent.

Q. Does that include both the engines and cars?

A. Yes, sir, everything chargeable to maintenance of equipment.

Q. Now, in this item of maintenance of equipment, how does the amount of cost for maintenance, compared with value of the equipment, correspond with maintenance of other items of the property of the Company, like that of way and fixed structures and the like?

A. Well, the maintenance of equipment takes approximately one-fifth of the total operating expenses, and the value of the equipment is possibly one-fifth of the physical property of the Railroad, not counting lands and rights-of-way; and to

maintain our permanent way it took our Company last year 22 per cent of the total operating expenses, a trifle more than for the maintenance of equipment, and that is the other four-fifths of the physical property not counting—

Q. So, on the basis of value, then, it would appear, as I understand your answer, that the maintenance of equipment is about four times as great as the maintenance of the rest of the property, as compared on the basis of value?

A. Yes, sir, that is right; just about four times on that basis.

Q. Now, will you indicate the importance of this factor in getting at the relative cost of the long-haul business and the short-haul business?

A. Well, your equipment being used to a very limited extent for each unit of local business, yet takes one-fifth of the total operating expenses to keep it in order, and there is, therefore, a very much higher burden because of the maintenance of equipment, per unit, on this local business than in your longer-haul through business.

Q. And would that be true, per unit of transportation, that is, per ton mile, on the average?

A. Yes, sir.

Q. Is that the unit you referred to in your answer?

A. Yes, sir.

Q. Did you, before coming to the Northern Pacific Company, while you were with the Burlington, have occasion to consider the same question of the relative cost of the short-haul business and the long-haul business?

A. Yes, sir.

Q. You were familiar with the conditions there affecting that subject?

A. I was quite familiar with that part of the Burlington road in southern Iowa and in Missouri north of St. Louis, and moderately familiar with Illinois and Nebraska.

Q. And how were the conditions in Missouri on the road or roads with which you were there familiar affecting the relative cost of the short-haul business and the long-haul business as compared with the conditions in Minnesota?

A. They were not very dissimilar; we had a great deal of short pick-up business, and we had quite a good volume of long-haul interstate business and considerable trans-state business, that is, business that crossed the state of Missouri without stopping at all.

Q. Which is referred to in a note at the bottom of Ex. 80 here, I think, is it not? the trans-state business is stated.

A. Yes, sir, the trans-state business here is referred to as amounting to about—

Q. Ten or twelve per cent?

A. Twelve per cent.

Q. Of the ton miles within the state?

A. At the bottom of the last page, Mr. Master.

Q. And in Missouri, how did that class of business which you and Mr. O'Brien agreed to define as through intrastate business, compare with the volume here, relatively; that is, business beginning, moving wholly within, and ending within the state?

A. My judgment would be that what you might call through intrastate business (which, as I understand it means intrastate business that passes over at least one engine-run,) was no greater in Missouri than it is in Minnesota, substantially the same.

Q. What effect, if any, on the cost of doing the state or local business in Missouri, as compared with the situation here, would the existence of large towns on the easterly side, and two or three large towns on the westerly side of the state, have?

A. Well, the fact that you have large towns on the Missouri and Mississippi rivers through which a large amount of

interstate business and trans-state business passes, is a benefit to the railroad in reducing the cost of its through long-haul business.

Q. And, on the average, what effect does it have on the cost of the state business as compared with the situation in Minnesota?

A. It would help the state business to the extent that you might have a greater proportion, possibly, of through interstate business.

Q. On page 3 of Ex. 89, "Total net operating revenue" is stated to be $5,630,696.67. I think the question that Mr. O'Brien raised in your cross-examination, last week, was whether or not that sum was just the operating expenses or whether it included taxes. I think you said it did not include interest or dividends.

Mr. O'BRIEN: He said it did not. Mr. Elliott said undoubtedly it did not. I asked him if it included every expenditure. That was my question. Here is the question: "* * * what items of expenditures necessarily made upon the road are not included in your statement Ex. 89, whether such items of expenditure are properly classed as operating expenses, or come under the head of other expenditures which still are necessary?"

WITNESS: Well, I have a revised statement here which I think will answer Mr. O'Brien's question, if he would like to have it.

Mr. BUTLER: The witness produces a paper which is marked "Complainant's Ex. 89-A—Elliott," explanatory of the item on page 3 "Total net operating revenue, $5,630,696.67," and the same is offered in evidence.

By Mr. O'BRIEN:

Q. Now, there is just one question, Mr. Elliott. Assuming that a large portion of the tonnage carried upon local trains

in interstate tonnage, all of those elements to which you have referred, as to the cost of maintenance of equipment, peculiar expenses attaching to local trains because of greater liability to accident, delays in the management of trains, delays by local trains in the operation of other trains, should be charged to that interstate tonnage in the proper proportion, just as much as to the state tonnage carried upon the same trains?

A. Yes, I tried to point out that the same expenses would apply on short-haul interstate business that would apply on short-haul local business.

Q. So that you have no reason for changing the statement that was made before, that the different element of expense arises from the fact as to whether it is a short-haul or local transaction or a through transaction?

A. No, sir. It should be borne in mind, however, as I tried to point out in my other statement, that interstate business has only one terminal in the state and that the state business has two terminals.

Mr. Ryman: And the trans-state business?

Witness: The trans-state business has no terminals at all.

Q. And these are the conditions which render the cost of transacting interstate business less than the cost of transacting state business, are they not?

A. Well, if you assume the conditions as you say, all the other conditions being equal, the idea of only having one terminal on the interstate business reduces that cost by the amount of one terminal.

Q. You don't mean to claim that none of the interstate business has only one terminal cost?

A. The interstate business has only one terminal cost in Minnesota.

Q. All of it?

A. Why, yes.

Q. Have you not two terminals in Minnesota with regard

to interstate business originating out of the state and received by you on your terminal division and delivered by you in the state of Minnesota where that originated upon other lines outside of the state of Minnesota?

A. Not in the sense that you have been using terminal expenses; where a carload comes through from Chicago to Staples, they don't have a terminal expense to the extent that they do on one we handle exclusively here.

Q. Possibly not to the extent upon a carload, but a great deal of your freight comes from Chicago in less than carloads?

A. We have this divisional terminal expense that we have touched upon once or twice, where an engine stops and has to be hooked on to the train, a slight divisional terminal expense, but it is nowhere near the expense of a shipment originating and terminating.

Q. But there is a great deal of freight that is interstate which originates on lines other than your line outside of the state, that is brought here in broken lots?

A. Well, there is some.

Q. Received by you?

A. Oh, yes, we have some.

Q. And loaded upon your trains?

A. Yes, sir.

Q. And then delivered from your trains?

A. Yes, sir.

Q. Now, there are two terminal expenses in that case?

A. On a limited amount in less than carload lots there would be two terminal expenses.

Q. You are always speaking of that as a limited amount.

A. Yes, sir.

Q. You don't know the amount of that?

A. No, but I know the general trend of commercial business, that the distribution of less than carload business is from the centers near by to the communities. A man at Staples

doesn't buy his groceries down in St. Louis or Chicago to the extent that he buys them at the nearest large point. The whole development of trade will show that. The jobbing centers grow up little by little near to the denser population.

Q. Well, of course, as I say, you don't know; you haven't examined that and you don't know?

A. I haven't examined the way-bills to see how much less than carload business comes through to Minnesota points. As I say, in the nature of things, the Minnesota country storekeeper is apt to buy of the Minnesota jobbing points. I think our Minnesota jobbers are not very smart if they don't control a very liberal share of that business; I know they do.

Adjourned until Tuesday, May 6th at 10 o'clock A. M.

FEDERAL BUILDING, St. Paul, Minn., Thursday, May 6, 1909, the hearing was resumed at 10 o'clock A. M.

JOHN B. DARLING,
recalled on behalf of Complainant, testified:

By Mr. How:

Mr. How: We produce, in compliance with the request of counsel for the Defendants, a statement of the assets of the Northwestern Improvement Company, as shown by its books March 31, 1909, which is the date of its last balance-sheet. It is accompanied by a history of the origin and development of the company, the purposes of its development and the manner and circumstances under which it acquired its properties. The statement of assets shows the book value, which I think in every instance is the actual cost to the company of the properties. In some cases the properties are now worthless, and the book value is more than the actual value; in others, doubtless, the properties are very much enhanced; but the statement of value

is the only statement which was within the power of the Company to furnish.

Q. Mr. Darling, since you testified in this case last summer, have you heard or have you read, or both, all the testimony given in this suit by Mr. Morgan in behalf of the Defendants?

A. Yes, sir.

Q. Have you examined the exhibits, and all of them, prepared by him and offered through him in this suit?

A. Yes, sir.

Q. Have you made further investigation with regard to the particulars of some details used by him in making his estimates Exhibits OO and QQ, I think, being his Estimates A and B in this case, through which you gained information that was not disclosed in his exhibits?

A. Yes, sir.

Q. Have you given such attention to comparisons between the figures exhibited by him in his estimates of the present cost of construction of the system of the Northern Pacific in Minnesota and those exhibited by you in your Ex. No. 3, which is your State estimate, as to enable you to describe the difference between him and you and to state to what they are attributable?

A. I think so, yes, sir.

Q. Let us take the items separately. I have before me defendants' Ex. XX—Morgan, which perhaps you haven't in your possession, but which shows the various estimates and comparison of them in the aggregate, Mr. Morgan's Estimates A and B and your Ex. 3, showing the cost of construction as of April 30, 1908, and showing also the same with regard to December 31, 1906, your Ex. 3 being in two chapters, as it were, the first is of date December 31, 1906, and the second with the aggregate amounts added; and I call your attention to the item of grading, clearing and grubbing. Your figures for that, under date of December 31, 1906, are $10,159,811. Will you state how those figures are made up, of what the sum total is composed?

A. Well, it includes the entire grading, clearing and grubbing on the system in Minnesota.

Q. Well, will you state the items of grading, of clearing and grubbing, of corduroy and of timber piling, etc., as shown in this?

A. There are 27,140,617 cubic yards of earth at 33 cents, making a total of $8,956,403; solid rock, 182,320 cubic yards at $1.25, $227,975; clearing and grubbing, 5,705 acres at $75, $441,171; corduroy, $482,576; timber, piling and material left in fill-bridges, $51,686; a total of $10,159,811.

Q. Mr. Morgan's figures are $7,695,858.70, making a total difference between you and him of $2,463,952.30?

A. Yes, sir.

Q. Your classification does not include loose rock,—loose rock in your classification being included in earth. He allows 41,186 cubic yards of loose rock at 50 cents a yard, making $20,593. That yardage should be added to his yardage of earth, because you have included it in your yardage, in order to get the difference?

A. Yes, sir.

Q. Now, can you account for the rest of the difference between you in yardage or can you account for any of it?

A. Yes, sir.

Q. Will you do so, please?

A. The Northern Pacific total yardage for earth is 27,140,617 yards; the State's estimate is 25,771,559 cubic yards, plus 41,186 cubic yards; or a total of 25,812,745 cubic yards.

Mr. O'BRIEN: Will you find out if that is of the same date?

WITNESS: It includes exactly the same things with the exception of those which are noted here.

Q. Your exhibit and Mr. Morgan's do not purport to be of the same date; do you know whether or not they were made as of the same time?

A. They were presumed to be made at the same time. His

State estimate recites, in the report to the State Warehouse Commission, that the estimate is made as of 1907, but does not specify the date. This estimate is made as of January 1, 1907.

Q. Well, in checking up your estimate with Mr. Morgan's, do you know whether or not the estimates purport to be made as of the same period, as of the same time?

A. Yes, sir, for this material.

Q. Now, will you go on and explain the difference?

A. There is a total difference of $2,463,952.30 between the State's estimate for grading and the Northern Pacific's estimate, the latter being the greater. These differences are made up as follows: the State's estimate is 25,771,559 cubic yards at 27.37 cents, or a total of $7,029,330.65. The Northern Pacific's estimate is 27,140,617 cubic yards of earth at 33 cents, a total of $8,956,403; making the Railway's estimate more than the State's by $1,927,072.35. The State has also estimated (for which the Northern Pacific have no estimate) 41,186 cubic yards of loose rock at 50 cents, total $20,593, which is that much more than the Northern Pacific's estimate for that same material.

Q. That material being included in "earth" in the Northern Pacific's at 33 cents?

A. Yes, sir. Solid rock, the State's estimate is 182,832 yards, at $1.20 per cubic yard; total, $218,960.65. The Northern Pacific's estimate for solid rock is 192,320 cubic yards, at $1.25 per cubic yard, total, $227,975, being $9,014.95 more than the State's.

Clearing and grubbing,—the Northern Pacific estimate is 5705 acres at $75 per acre, a total of $441,171. I haven't the details of the State estimate but their total is $427,875, which is $13,296 less than the Northern Pacific estimate.

Corduroy,—the Northern Pacific have estimated at $482,576, for which the State have estimated nothing, making the Northern Pacific's estimate greater than the State's for that item by $482,576.

Timber piling and material left in fill bridges,—the Northern Pacific have estimated $52,696; the State have no estimate for it. The Northern Pacific's estimate is greater than the State's therefore, by $52,696. The total of these estimates and differences are as follows: The Railway estimate, $10,170,811; the State's estimate, $7,695,855.70; the difference, $2,467,955.30, is the sum that the Northern Pacific's estimate is greater than the State's.

Q. Now, let us take up these quantities separately. Your yardage of earth is 27,140,617; Mr. Morgan's is 25,771,370; but your yardage includes 41,185 cubic yards of loose rock; if we add that to Mr. Morgan's yardage of earth, it makes a total of 25,812,705 yards, so that the ultimate aggregate difference between you in yardage of earth is 1,327,912 yards?

A. Yes, sir.

Q. Now, can you tell how that difference of yardage arises, or any of it?

A. Yes, sir.

Q. Please do so.

A. At the time these estimates were taken, there was a great deal of construction going on in Minnesota, especially the double tracking west from Wadena. In making their estimate, the State confined themselves to material in the second track east of McHugh; the Northern Pacific added the total work that they were doing, including that made by the State as well as that west of McHugh, the latter being 1,104,922 cubic yards, which the State did not include in their estimate.

Q. So that that leaves a final difference between you in yardage of only 222,989 yards other than this 1,104,922 yards in the work west of McHugh to which you refer?

A. Yes, sir.

Q. What is the condition of that work west of McHugh at the present time, is it completed?

A. It is being operated, yes, sir, completed.

Q. It is in the hands of the operating department and no longer under construction?

A. Except a small portion west of Stockwood; there are about three or four miles not yet completed.

Q. But it is in active operation by the Railway Company?

A. Yes, sir.

Q. And by the operating department of the Company?

A. Yes, sir.

Q. Have you prepared, for the purpose of corroboration and justification of your figures and your prices, as opposed to Mr. Morgan's for grading, a statement showing the actual contract price, and also the actual cost of grading in Minnesota for the last seven years, 1902 to 1908?

A. Yes, sir.

Q. Will you produce that, please?

Witness produces statement marked for indentification "Complainant's Ex. 81—Darling."

Q. This statement marked Complainant's Ex. 81—Darling has a caption "Northern Pacific Railway, Cost of Grading Lines in Minnesota," the first chapter, "Work done by Contract," and the second chapter, "Work done by Company Force." Comparing this statement with your Ex. 4 for the work done between Lake Park and Glyndon, I find that in Ex. 4 the cost per yard to the Railway Company is 35.7 cents, whereas, the same exhibit shows that there was paid to contractors per yard 36.2 cents. Will you explain that?

A. I think I have already testified that on that particular piece of work part of it was done by contractors and a great portion by the Railway Company.

Q. So that these figures are not inconsistent, but only apparently so, on the face of it?

A. Oh, no, these figures are correct.

Q. Now, this Ex. 81—Darling shows also the work done by the Railway Company upon that piece of track?

A. Yes, sir; the difference between this exhibit and that is that I have separated the Company work from the contract work, and shown the contract price which we paid the contractors, whereas, this shows the money that was paid the contractors.

Q. Ex. 81 shows that the average price paid for the work done under contract to contractors is 24.4 cents for 3,809,825 yards of earth; is that correct?

A. No, sir, not the way you put it. That is the average unit price paid per yard to the contractor.

Q. I meant to be understood that way. 24.4 cents is the average unit price paid per yard to the contractor for this 3,809,825 yards of earth?

A. Yes, sir.

Q. The last column of that exhibit shows that the average cost to the Company for moving that yardage is 35.3 cents per yard?

A. Yes, sir.

Q. A difference of 9½ cents per yard, which I take it, represents the average actual cost over and above the average unit price paid to contractors for that work?

A. That is correct.

Mr. O'BRIEN: Mr. How, in a question or two before the last, you asked Mr. Darling if the contract price was 24.4. The average contract price was 25.8 cents.

Mr. How: I was talking about earth.

Mr. O'BRIEN: Of course, the average contract price includes all kinds.

Mr. How: You are quite right, I am wrong. I should make the unit price for all materials including earth, loose rock and solid rock, 25.8, and the average cost is 35.3; making 9½ cents difference,—which, I take it, represents the amount of the average cost to the Company, over and above the average contract unit price for this total yardage, including earth, loose rock and

solid rock of 4,141,716 yards?

WITNESS: It does.

The MASTER: This is somewhat of a correction of a statement which you made just preceding?

Mr. How: That is right, and in order that I may not take time to go back and strike it out I am merely disclosing wherein I was wrong before.

The MASTER: I understood it that way.

Q. Have you prepared a statement showing the prices paid contractors, the unit prices for all grading on the Northern Pacific system from 1879 to 1907? which, however, does not include extra bills and force accounts.

A. I have a statement which shows the unit prices paid contractors during those years, yes, sir.

Q. Yes, that is what I mean.

A. Yes, sir.

Q. Will you produce that?

Witness produces "Complainant's Ex. 82—Darling."

Q. It is produced and marked Complainant's Ex. 82—Darling; its caption is "Grading done during years 1879 to 1907, showing unit prices and amounts paid contractors, not including extra bills and force account work." Will you state why this statement was not made to include extra bills and force account work?

A. This statement was made from books on record in the construction department in our office, and the auditor's books do not disclose these quantities or prices or amounts paid to contractors.

Q. Have you any means of determining what the extra bills and force-account bills were?

A. No, sir.

Q. So this is the full amount that you can disclose for all this work, just exactly what you have?

A. Yes, sir. These are taken from our final estimates.

Q. Does it cover all the work covered by your estimate of December 31, 1906, of which records are in existence?

A. Yes sir.

Q. I wish you would compare Ex. 82—Darling, with the addition of 9½ cents shown by you to be the average amount of cost incurred by your Company over and above the contractors' unit price, with the sheet in your Ex. 2, being your estimate for the system, headed "Details of Grading."

A. In that estimate as submitted for the system for June 30, 1906, there was included 116,412,694 cubic yards of earth at 28 cents. This exhibit shows that earth cost, per unit price per cubic yard to the contractor, 20.3 cents. Taking the constant of 9½ cents, which it is found that the Company had to pay more than it would have to pay to the contractor for unit prices(it would give an average unit price to be used for the Company of 29.8 cents per cubic yard.

Q. As opposed to what price which you actually used for the system?

A. 28 cents.

Q. Did you have all this information before you and tabulated at the time you made your estimate No. 2?

A. No, sir.

Q. This information has been dug out of your records since that time?

A. Yes sir.

Q. And perhaps since you testified before in this suit?

A. Yes sir.

Q. What is you opinion *now*, in view of this information from your records, with regard to the reasonableness of the 28 cents which you applied to the yardage of earth upon the system in that estimate No. 2?

A. I think that unit price that we used is very moderate.

Q. And is that opinion strengthened in any way by this later information?

A. Yes, sir, it is.

Q. Now, I will ask you, in regard to these accounts from which these statements which you have already produced are made, as well as to all other statements which you have testified to or which you may testify to, are all your records, including vouchers, open to the inspection of the representatives of the Defendants?

A. Yes sir.

Q. Have they been all the time?

A. Yes, sir.

Q. Freely and fully?

A. Yes, sir.

Q. For their full examination?

A. Yes, sir.

Q. For checking and criticism?

A. Yes, sir.

Q. Now, I would like to have you turn to the sheet headed, "Cost per cubic yard for Grading," in this same Ex. 2, and I would like to have you compare Ex. 82—Darling, with the information furnished by Ex. 81—Darling, with that statement.

A. This statement shows earth estimated at 28 cents; using the average price per cubic yard for earth, plus the constant, makes 28.8 cents per cubic yard for material which is not identical with this material. Now, these two materials have got to be added together.

Q. Which two?

A. Earth and hard-pan.

Q. Earth and hard-pan and cement gravel must be added together?

A. Yes, sir, partially added together, because part of the hard-pan and cement gravel shown here is included in the original specifications for loose rock.

Q. And where is the rest included?

A. In earth.

Q. That is to say, Ex. 82—Darling does not show any classification of hard-pan and cement gravel?

A. No, sir.

Q. What is your judgment, from the information derived from exhibits 81 and 82—Darling, with regard to its corroboration of your estimate as shown upon this sheet headed "Cost per Yard for Grading?"

A. It comes out a little more than what I have estimated, because if you take the total average cost of all classes of material during these twenty-eight years, which is 32.4 cents, and add the 9½ cents constant, it makes 41.9 cents per cubic yard. Now, you take our average quantity on the system and divide it into the cost which we have estimated, it gives an average price of something less than 40 cents and a little more than 39; whereas, this average cost shown upon the exhibit makes about 41.9 cents per cubic yard.

Q. What is your judgment, in the light of this added information which you have since derived, as to the reasonableness of your estimate as shown in Ex. 2?

A. That our prices are very moderate.

Q. You say you have no details with regard to the clearing and grubbing, the difference there between the State's estimate and yours?

A. No, sir.

Q. The State has allowed nothing for corduroy. On what basis did you make an estimate for corduroy in the state of Minnesota, and for what reason?

A. The State have partially made an estimate for corduroy, in this way, that they allowed over certain marshes what was supposed to be twenty-five per cent of the profile quantities, making a total of something like 329,000 yards, (I think it was,)

which at their rate of 27.27 cents, would be something over $90,000.

Q. That is included, then, in their yardage of earth?

A. That is included in their yardage of earth, but we also claim that we should have that twenty-five per cent additional in quantities on account of corduroy sinking and making us put in this additional quantity; that is, we should have not only that additional twenty-five per cent in quantities, but we should also have the corduroy and the cost of building the bridges.

Q. I am asking you on what basis you made this estimate of corduroy, whether upon your own knowledge of the facts or upon theory or upon what?

A. No, sir, it is entirely upon my own knowledge of what corduroy costs.

Q. And what corduroy exists or did exist and was necessary for the building of the system?

A. Yes, sir, it was.

Q. And how about timber piling and material left in filled bridges?

A. That refers merely to the timber piling left in filled bridges over these particular marshes where corduroy was used.

Q. Where did you get your records or information with regard to that?

A. From actual facts.

Q. Your actual knowledge?

A. Yes, sir.

Q. Your own personal knowledge?

A. Yes, sir.

Q. And that is not allowed for at all by the State, apparently?

A. No, sir.

Q. Taking up the item of tunnels, your estimate for the state of Minnesota is $358,263; Mr. Morgan's estimate is $252.

2218. Always, in speaking of Mr. Hooper's estimate, I speak of Mr. Hooper's estimate of the cost of present construction and not, of course, of the present value.

Mr. O'Brien: You mean the cost of reproducing?

Mr. How: Yes.

Q. Will you state to what that difference is attributable?

A. The difference is entirely attributable to the cost of reproducing the tunnel under Seventh street.

Q. Which you claim should be included in your estimate, and the State claims that, since the city paid for it, it should not be included?

A. Yes, sir.

Q. Other than that, your figures agree?

A. Yes, sir.

Q. The next item is cross-ties and switch-ties, your estimate for the state being $2,[illegible], Mr. Hooper's being $2,[illegible]. Will you state to what the difference is attributable?

A. There is a total difference of $[illegible], of which $[illegible] is due to freight on material, a part of which they have included elsewhere; the balance is due to difference in prices.

Q. And to what is the balance due?

A. Mostly to unit prices.

Mr. How: And those unit prices have been sufficiently testified to by both sides already.

Q. Now, will you explain on what basis you estimated freight for this?

A. Full tariff rates.

Q. And why?

A. Because during the construction of the line a great deal of the material has to be hauled in over other roads, because it is more convenient to do so, it is more economical to do so, and it increases the progress of the work. As a matter of fact, it is cheaper to haul it over other lines when you can than to haul it over your own line during construction.

Q. If during construction it becomes necessary to haul material over the line under construction, who operates the material trains?

A. The construction department.

Q. And not the operating department?

A. No, sir.

Q. What is your best judgment, based upon your experience, if you have had experience (and I take it you have) with regard to the comparative cost of operation of trains by the construction department and by the operating department?

A. I don't think the difference of the departments has anything to do with it, but it is a fact that nobody could operate trains during construction anywhere near as cheaply as they could during the operating period after construction is finished.

Q. And what is your judgment with regard to estimating tariff rates for freight over your own lines during construction as compared with the actual cost of the work of transportation?

A. Well, it is reasonable, and it really costs more where we haul it ourselves than it does to pay full tariff rates over other lines.

Q. As a question of economy, if you have two courses open to you, one, to hire transportation on other lines, the other to carry it on your own, during construction, which would you use?

A. Why, I would carry it on other lines.

Q. Merely as a question of economy I mean.

A. Economy and enhancing the progress of the work.

Q. The next item is ballast. Your estimate of the present cost of ballasting the Northern Pacific System in Minnesota, as it now is ballasted, is $1,958,395, Mr. Morgan's is $1,266,932.79; to what is this difference attributable?

A. Entirely to unit prices.

Q. Have you prepared a statement showing the actual cost of ballasting on the Northern Pacific System, including Minne-

sota, during the past three years?

A. Yes, sir. (Producing statement.)

Q. It is produced and marked "Complainant's Ex. 83—Darling." Its caption is "Statement of actual cost of ballasting done by Northern Pacific Railway Company during years of 1906, 1907 and 1908." It shows an aggregate of 1,548,332 cubic yards of ballasting during that period, at an average cost of 81.69 cents per yard. Will you compare that statement with your estimates with regard to ballast in both Ex. 2 and Ex. 3 and state what you please with regard to the justification for the figures employed by you in those statements as the price for ballasting in the light of this information disclosed by Ex. 83?

A. The prices used by us in estimating ballast, both for the lines within the state of Minnesota and for the lines of the System in all states, were 66 cents per cubic yard, of which there was a total of 2,967,265 cubic yards in Minnesota. This exhibit covers 1,548,332 cubic yards, or about 60 per cent of what is estimated for Minnesota, and it cost 81.69 cents per cubic yard.

Q. And it covers in Minnesota how many yards?—338,257, I make it.

A. It covers 338,257 cubic yards.

Q. Cubic yards in Minnesota?

A. Yes, sir.

Q. Being 198,257 yards attributed to Minnesota in this exhibit, and 140,000 yards attributed to B. F. & I. F. Company, which is in Minnesota?

A. Yes, sir.

Q. And which has been under your charge?

A. Yes, sir.

Q. What is your opinion with regard to the justification for the figures used by you in Exhibits 2 and 3 in the light of this information?

A. I think my estimate was too low.

Q. You think it is too low?

A. Yes, sir.

Q. Now, I will ask you if these figures, so far as they have been completed, have, from time to time, been open to inspection by the representatives of the State, including the vouchers upon which they were prepared, as well as the records.

A. Yes, sir.

Q. And have you vouchers to show this is the actual cost?

A. We have vouchers to show everything, except a charge of 3.6 cents for maintenance. That is an arbitrary charge per cubic yard, based on our experience and knowledge in maintaining track, for hauling ballast trains over track that has been accepted from the contractor, and for which we have to pay.

Q. And, apart from that item, you have vouchers to show all expenditures which help to make up this exhibit?

A. Yes, sir.

Q. The next item is rails. Your figures for the state of Minnesota contained in your Item 3, rails, are $4,700,665.76, and for freight $416,007.97, making an aggregate of $5,116,673.73. Am I correct in that?

A. Yes, sir.

Q. Mr. Morgan's figures are $4,728,531 for the rails (which is somewhat in excess, approximately $27,500 in excess of your respective figures), and for freight $139,566, making a total of $4,868,097, and leaving a net difference of $248,576.73 by which Mr. Morgan's figures are lower than yours for both material and freight; am I correct about that?

A. Yes, sir.

Q. Now, I ask you with regard to the freight and the basis upon which you estimated the cost of freight with regard to rails in your estimate No. 8.

A. The Railway estimate for freight is based entirely on tariff rates.

Q. And your explanation of that and justification is the same as with regard to ties, I take it?

A. Yes, sir.

Q. And so with regard to all freight that you have estimated upon material?

A. Yes, sir.

Q. Frogs and switches and track fastenings,—although your figures and Mr. Morgan's do not exactly agree, I find that the aggregate of those two items, as between you and Mr. Morgan, are substantially the same.

A. Yes, sir.

Q. There is a very slight difference in the aggregate; he is beyond you in one of them and you are beyond him in the other?

A. Yes, sir.

Q. Track-laying and surfacing,—your estimate No. 2, for Minnesota, gives $1,297,727.08 as the present cost of laying track and surfacing the System as it now exists. Mr. Morgan's figures for the same item are $792,636, a difference by which his figures are lower than yours of $505,091.08; am I correct in that?

A. Yes, sir.

Q. To what is that difference attributable?

A. Entirely in unit prices.

Q. Have you prepared a statement showing the actual cost of track-laying upon the Northern Pacific System during the past three years?

A. Yes, sir.

Q. Will you produce that? It is produced and marked "Complainant's Ex. 84—Darling." Its caption is "Statement of actual cost of track-laying done by the Northern Pacific Railway Company during years 1906, 1907 and 1908." It shows track-laying upon 444.32 miles of road, 96.62 miles of which are in Minnesota, 62.62 miles being attributable to Minnesota in the estimate, and 37 miles to the Big Forks & International

Falls Railway Company, which is in Minnesota. From what records or other material was this statement made?

A. Entirely from our records.

Q. And what do these figures represent?

A. They represent the cost of laying track which afterwards or immediately is to be ballasted.

Q. And have you vouchers for all the expenditures which serve as the basis of this exhibit?

A. Yes, sir.

Q. Everything?

A. Yes, sir.

Q. What part of those figures rest upon estimate alone, or are arbitrary?

A. None.

Q. Those all, then, represent actual expenditures, as disclosed by your records?

A. Yes, sir.

Q. For which you have vouchers?

A. Yes, sir.

Q. Are those vouchers, and have they been, open to inspection by proper representatives of the State?

A. Yes, sir.

Q. Will you compare this exhibit and the information which it gives with the prices used by you in your Exhibits 2 and 3 for track-laying?

A. My prices in Exhibits 2 and 3 for track-laying are based on two different kinds of track-laying: one is track-laying which is to be immediately ballasted, the other is track-laying which is not to be ballasted but is to be operated after it is side-surfaced. Track that is laid and side-surfaced is estimated under the head of track-laying; track that is laid and ballasted is estimated under two heads, one, track-laying and surfacing, the other, ballasting. Track-laying that is to be immediately ballasted was estimated at $700 a mile in my Minnesota esti-

mate. Compared with the tracklaying in this schedule, it is an $800 to $1,112.50. I have nothing in this schedule to show what track-laying costs that has to be surfaced and operated on surfaced track, but my estimate for that is even less than our actual cost for track-laying which is not to be surfaced.

Q. Your estimate for Minnesota is what, for track-laying, in your No. 2?

A. $740 a mile where track is to be ballasted and $1,850 for track that is to be surfaced.

Q. Comparing that with the track-laying as shown in Ex. 84, in Minnesota alone, in what manner does it appear to be justified?

A. Well, it is low.

Q. It is lower than the actual prices which you have been paying during the past three years?

A. Yes, sir.

Q. The next item is stockyards and appurtenances. The estimate made by you in Ex. 2 is $28,982.65; that of Mr. Morgan is $19,711; showing a difference by which his figure is less than yours of $17,211.65. To what is that difference attributable?

A. The only explanation I can give on that is that I believe the State has assumed a plan of yard inferior to that actually used, because we sent a man over the road between Northtown Junction and Staples (over what is known as Section 11) and took a complete inventory of all material in these stockyards.

Q. How many stockyards are there on that section?

A. I have a statement here showing. (Looking at statement.) Twelve.

Q. Proceed.

A. This inspector took an inventory of everything connected with and chargeable to the stockyards. That inventory is shown in a statement before me. Taking that inventory and applying the prices which Mr. Morgan has used in his estimates, it would

make the cost of reproducing these stockyards, with nothing allowed for grading, drainage or transportation, $4,156.67.

Q. Using Mr. Morgan's own unit prices?

A. Yes, sir.

Q. As against what?

A. As against our inventory.

Q. As against what he actually did make for his aggregate?

A. For which Mr. Morgan has returned $2,419.98 as the cost of reproduction,—as I said before, with nothing allowed for grading, drainage or transportation.

Q. What have you to say, in the light of this inventory and your particular investigation with regard to these stockyards, as to the propriety of the figures which you used in your Ex. 3?

A. I still think our figures are very conservative.

Q. The next item is water stations. The figures used by you in your Ex. 3 are $289,490.03; those of Mr. Morgan are $218,861.77, a difference by which his figures are smaller than yours of $70,629.02. What have you to say with regard to that difference?

A. The Northern Pacific have in Minnesota forty-three tanks on low frames and seventeen tanks on high frames. The State's estimate averages $552 below the Northern Pacific's estimate on low-frame tanks, and $972 below on high-frame tanks, which accounts for $40,200 of a total difference of $70,629.02. The remainder of the difference is practically in wells and pipe-lines. Where our figures are based on knowledge of local conditions now, we know that the State is that much too low on these tanks, because it is something that we are building all the time, and we know the exact cost of those tanks, and we have the plans and estimates, which can be checked.

Q. And they are open to inspection by the representatives of the State at any time?

A. Yes, sir.

Q. What have you to say with regard to the justness of the

figures used by you, in the light of your present current experience of the expense?

A. I think our figures were conservative.

Q. The next item in which there is difference enough so that it appears justifiable to pay attention to it, is engineering. Your Ex. 3 shows an estimate for engineering of $2,184,691.58; Mr. Morgan's Estimate "B" gives $1,738,572.30, and his Estimate "A" gives $1,908,486.37, the difference being attributable to the different total upon which he estimates his percentage. Will you explain the difference in the allowance for engineering between you and Mr. Morgan?

A. Mr. Morgan has allowed no engineering for the cost of reproducing the equipment. Otherwise, I think it is practically the same. Now, my item for cost of engineering on equipment perhaps may be a little blind, because it is not really engineering which we call engineering; in the broad sense of the term, it is engineering, but it is mechanical engineering and it is work which the mechanical department has to do to get up general designs and specifications and inspect machinery at the shops, and when it gets out on to the ground they have to make all dynamometer tests, out on the road, to help determine the character of the design, and it is work that really costs about one per cent of the cost of reproducing equipment, but we have allowed the three per cent for engineering to cover that, the same as was allowed in everything, and my estimate, perhaps, may be in error to that extent.

Q. You think you may have allowed too much for the cost of mechanical engineering?

A. Possibly, yes, sir.

Q. Mr. Morgan has allowed nothing?

A. Has allowed nothing.

Q. Mr. Morgan has allowed, under his item of adaptation and solidification of roadbed, $1,613,612.76. You omit that item entirely and make no estimate with regard to that. Will

you say why you left that out?

A. That is left out for the reason that we did not consider depreciation or appreciation of the property. The appreciation of the property is so much greater than that of depreciation that depreciation was not considered, and it is almost impracticable to tell what the appreciation is.

Q. In dollars and cents, you mean?

A. In dollars and cents, yes, sir. It varies entirely with the life of a road and the perfection to which that road has come from constant work by the section men, the lapse of time, becoming settled by the elements and by the heavy traffic over it. I would not want to estimate what the appreciation would be but it is a great deal more than the depreciation.

Q. If you should estimate both depreciation and appreciation, due to lapse of time and hammering by the elements and the care of the road, how, in your judgment generally, would they compare?

A. Well, the appreciation is very much more than the depreciation.

Q. Do you know of any system by which you can measure, in dollars and cents, either depreciation or appreciation of a railroad system?

A. No, sir, not accurately.

Q. Your Ex. 3, being your estimate for the state of Minnesota, was prepared in two chapters, as it were; first, under date of December 31, 1906, and, second, the actual expenditures as shown by the auditor's receipts, checked by your department in the interim up to April 30, 1908, as I remember it.

A. Yes, sir.

Q. Have you prepared a new estimate, which gives each item in the aggregate instead of lumping the entire expenditures in one item as is done in Ex. 3?

A. Yes, sir.

Q. Will you produce that, please? It is produced and

marked "Complainant's Ex. 85—Darling." Its caption is "Northern Pacific Railway, Cost of Reproduction of Lines in Minnesota as of April 30, 1908." It gives the same total as is contained upon the first page of Ex. 3—Darling, heretofore offered in this case, and it contains some detail sheets which are different, and in addition, to those contained in Ex. 3—Darling, but the main difference in the first sheet, showing the totals of each item, is that the actual expenditures, which you have testified were made under your department and checked over by your department, between the 31st day of December, 1906, and the 30th of April, 1908, have been allocated to the respective items.

A. Yes, sir.

Q. That is correct, is it?

A. Yes, sir.

Mr. How: Each of those exhibits produced this morning by the witness is offered.

Q. When you say that appreciation from care of the road and lapse of time exceeds depreciation from lapse of time and use of the road and its equipment, do you assume that during that time the road has been properly maintained?

A. Yes, sir, I should have said that,—a well-maintained road.

Q. What is your judgment with regard to the fact as to whether or not the Northern Pacific management have been good "housekeepers"?

A. The Northern Pacific is a very well-maintained road.

Q. And has been for the last—

A. For the last fifteen years, to my knowledge.

CROSS-EXAMINATION

By Mr. O'BRIEN:

Q. You testified in your original examination, just as you have today, Mr. Darling, that the estimated value of reproducing the road did not contain the entire value of the roadbed be-

cause the present roadbed, having been constructed for a long period of time, had appreciated in value?

A. Yes, sir.

Q. And Mr. Elliott and certain other officers testified to the same thing, did they not?

A. I believe so.

Q. So that the result of your testimony was that there were two considerations: first, the actual cost of making the construction, and then the additional fact that the Northern Pacific, as it exists and as it is at present, is worth more than that?

A. That may be so; I didn't consider that in my estimate.

Q. No, but that is exactly what Mr. Morgan has done; he has first estimated the cost of reproducing the road now, has he not, and then added to that an amount for appreciation?

A. Yes, sir, but that appreciation extends over a long period of time; Mr. Morgan's estimate covered the period during construction.

Q. Whether he has added enough or not is another question, but I am talking of the way it is done; it is at least done so that both the elements are there, the only question is whether he has allowed enough for each?

A. Yes, sir.

Q. In your estimate you have not separated—

A. No, sir.

Q. —and it is impossible for us to know how much you have added for the appreciation?

A. I have added nothing whatever for appreciation.

Q. Now, Mr. Darling, the first 500 miles of the Northern Pacific that were constructed prior to 1875 were constructed and equipped at about the rate of $23,000 a mile, were they not?

A. I couldn't tell you; I don't know.

Q. And the entire construction of your road, according to the reports filed with the Commission, has cost very much less

than the figures given in your estimate of the cost of reconstruction?

A. I have not checked that up, Mr. O'Brien; I couldn't tell you.

Q. And, of course, it is true that the construction outside of Minnesota has been the most expensive portion of the Northern Pacific?

A. NO, SIR!

Q. Now, didn't you and Mr. Berry and everybody agree that the construction of the Northern Pacific west of Minnesota was the most expensive, on the average?

A. I don't think so. I don't think I ever made such a statement.

Q. Is there any portion of the Northern Pacific road that is as expensive in its construction as the portion over the mountains?

A. Why, for the railroad itself, without considering accessories, I don't think there is anything more expensive than perhaps the line over the mountains, unless it is some of the lines on the Peninsula and west of the Cascade mountains; but there are a great many lines in North Dakota, a great many lines in Montana, a great many lines in Washington, that are far less expensive than the lines in Minnesota. Minnesota grading is very expensive work.

Q. There are just two conditions that bring in expensive work in Minnesota, are there not?—the old St. Paul & Duluth runs through some very hard rock near Duluth,—

A. Yes, sir.

Q. —and then, in other portions of the northern part of the state, the line crosses the swamps or muskegs, as they are called?

A. Yes, sir.

Q. And outside of those conditions the construction is very economical, is it not?

A. No, sir, I think not. There is a great deal of red clay in Minnesota, that is extremely difficult to move. I don't know of any class of material that we have on the road anywhere that is more difficult to move than the clays of Minnesota.

Q. You don't know whether the cost per mile of constructing the road, as you have given it with regard to Minnesota, exceeds by many thousand dollars the total cost of construction and equipping the road as contained in the annual reports of the Northern Pacific Railway?

A. It possibly would; I should say that the cost of the line of Minnesota per mile was very much greater than the average cost of a mile for the System, on account of the expensive terminals.

Q. Leaving out of consideration the values placed upon real estate and the values placed upon the terminals, is it not true that this estimate of cost of reproduction would be much more than the average actual cost of constructing the line and equipping it as contained in the annual reports?

A. I couldn't tell you without comparing it, Mr. O'Brien; I have never checked it up.

Q. In fact, is construction today more expensive than it has been for the past thirty years?

A. By "today" do you mean the year 1909, or covering a period of five or six years?

Q. Well, I should think it would be fair to say covering a period of five or six years.

A. Personally, I think the average construction during the last five or six years has been more expensive than the average of the last twenty-five or thirty years.

Q. To what extent?

A. I couldn't tell you that off-hand, Mr. O'Brien, because there is a great deal of material in which there is no difference, but the cost of grading has increased, certainly, and the cost of ties and the cost of timber has increased. I couldn't tell

you about how much that would increase the total.

Q. But there would be some increase you think?

A. Yes, sir, there is some increase.

Adjourned until Friday morning, May 7th.

FEDERAL BUILDING, St. Paul, Minn., Monday May 10, 1909. Hearing resumed at 10 o'clock A. M., having been continued from May 7th.

JOHN R. DARLING,
recalled on behalf of Complainant, testified:

By Mr. Haw:

Q. In going over the differences between your estimate and that of Mr. Morgan on the last day's hearing, I seem to have overlooked two items that I desire to ask about and have explained; the first is the difference in the estimate with regard to bridges, trestles and culverts. Your figures for the state of Minnesota are $2,474,607; Mr. Morgan's are $2,379,544, a difference by which his estimate is lower than yours of $95,072. Will you explain to what that difference is due?

A. The difference is due almost entirely to the unit prices used; the quantities are apparently identical.

Q. Have you prepared a statement showing the actual cost of bridges, both in Minnesota and upon the System, during the past few years?

A. Yes, sir.

Q. Will you produce it, please? It is produced and marked "Complainant's Ex. 26-Darling," and consists of nine sheets; the eighth and ninth sheets, in order of arrangement, are entitled, respectively, in the copies, "Actual costs of various bridges on the eastern section of the Northern Pacific Railway, compiled from detail cost reports of the men in charge of the work." What period does that cover?

A. It covers from 1900 to 1908.

Q. About eight or nine years, then?

A. Yes sir; that particular statement shows the cost of the cheaper class of bridges constructed on the eastern section during those years.

Q. The last sheet is captioned, "Estimated and actual costs of sub and superstructure of various bridges constructed on the Northern Pacific System between 1904 and 1909; these bridges represent a total cost of $3,444,000." The last column of the last sheet, entitled "Remarks" shows that some of the work is not yet completed; and when the remark is "Actual cost" that is in view of the fact that the work has been entirely completed and that that is the full actual cost?

A. Yes, sir.

Q. On what basis have you estimated the work to be done on bridges which are not yet completed, as shown by the last column?

A. On the basis of the unit prices for which contracts have been let. This work, I might say, is practically all done by contract that is under way, and we have a contract for certain unit prices, and the estimates for the cost of completing this work are based on those unit prices.

Q. Now, will you state, generally, how these actual prices that you have been paying and are paying compare with the prices that you have used in your exhibits 2 and 3, respectively?

A. I can explain that better, perhaps, by showing what these sheets represent fully.

Q. I would like to have you do that.

A. This first page in the statement represents the estimates of the various bridges, of all classes, culverts, pipes and wooden boxes, in detail, on the various sections, and is simply a detail of the total which has been submitted as the cost of all bridges.

Q. When you refer to sections you mean the sections of the road in the state which have been used for the purpose of facility of valuation?

A. Yes, sir.

Q. Both by you and by Mr. Morgan?

A. Yes sir. The second sheet compares the Railway estimate with the State estimate, shows how much the difference of each particular class of structure is, and it shows the percentage that the difference bears to the total difference; for instance, on the first item of superstructure, the Northern Pacific estimate was $852,154, the State estimate was $736,847, a total difference of $115,307. The total difference of all bridges, pipes and everything charged to bridges, is $896,072; the $115,307 represented by the difference between the two estimates of the superstructure, is 12.9 per cent of the total difference; therefore, that last column shows you where to look for the big differences in the estimates. Now, the superstructure represents practically 13 per cent of that difference; the substructure 36.8 per cent; culverts 29.2 per cent. The other structures are comparatively close. Taking first the estimate for superstructure, on the next sheet is shown the unit prices used by the Railway Company, the unit prices used by the State, the basis of the Railway Company's prices, and the basis of the State's prices. Steel bridges are divided into I-beams, plate-girders, pin-spans and draw-spans, and the price per unit pound used in the estimate is given in the second column. For instance, on I-beams the railway company has used 3.3 cents per pound. On the next to the last sheet in this statement, I have shown what it has actually cost to construct a great many of the I-beam and plate-girder bridges on the eastern section, which are the cheaper class of bridges. For instance, Item No. 1, ten I-beam bridges and one deck-plate girder cost 3.28 cents per pound, without freight, or 3.49 cents per pound, with freight. The estimate that the Railway ac-

tually used was 3.3 cents per pound, without freight, for that same class of structure. Item No. 2 shows 15 I-beam and two deck-plate girders; the I-beams costing, without freight, 3.73 cents, and, with freight, 4.13 cents. Those are practically all the I-beams put in on the eastern section in the last six or seven years.

Q. And the average seems to be—

A. The average is considerably more than what we have used.

Q. —higher than the unit prices which you used, and therefore much higher in comparison than the unit prices which the State used?

A. Yes, sir. The second item of plate-girder bridges, the Railway estimated at 4.12 cents per pound, the State 3.5 cents; that can be shown in the same way. Item No. 2, on the next to the last sheet, has two deck-plate girder bridges, which cost 4.11 cents.

Q. Let us look at that item No. 2. The next to the last column, which is a double-column, shows 3.73 cents.

A. Those are for I-beams.

Q. So that the 4.11 cents are the plate-girders?

A. Yes, without freight.

Q. Those are the figures which are to be compared with your 4.12 cents?

A. Yes, sir.

Q. So that there you are a .01 of a cent high?

A. Yes, sir.

Q. And the State allows 3.5 cents per pound as against 4.11 cents of actual cost in your experience in Minnesota during the last nine years?

A. Yes, sir. There is another item on that same page showing a lot of double-track plate-girders which only cost 3.44 cents, without freight. That is considerably less than our estimate, and is due to the fact that they were second-track

bridges, and it cost nothing for false-work; it cost very little for hauling, and the erection was very simple, and we could put them right in from the cars, run the car right on to the bridge and put the deck-girders in without extra expense, and that is what made that particular item come so low.

Q. That is, you had a bridge built along there for the second track?

A. Yes, sir.

Q. And could handle it from the bridge which you had in existence?

A. Yes, sir.

Q. And is not properly to be compared, you think, in expense with the—

A. Well, it is one of the cheap bridges, the average cost is made up of a lot of cheap bridges and moderate-priced bridges and heavy-priced bridges. Now, for instance, in the item above, there are five 100-foot deck-plate girders, constructed at Little Falls across the Mississippi river, which cost 4.17 cents, without freight. The total average, without freight, of all those bridges,—the cheaper class was 4 cents, without freight, and 4.31 cents with freight. This statement was made up for the reason that the State criticised this first estimate or criticised the bridges which we had used in the first estimate, by showing that we had attempted to put in the most expensive structures. As a matter of fact, this sheet represented the structures as they were built, whether they were expensive or inexpensive, and this next to the last sheet represents the very least expensive bridges which we have. The fairer, and the only statement to be used, would be the last sheet, which shows an average price of all the different structures.

Q. On the System?

A. On the System.

Q. The average, exclusive of freight, on the System, being 4.28, as against 4 cents for the cheap bridges in Minnesota, and

with freight 4.96 cents against 4.3 cents for the cheap bridges in Minnesota?

A. Yes, sir.

Q. When were these statements and this information, shown in Ex. 86—Darling, gathered together?

A. Within the last three months.

Q. And for what purpose?

A. For the purpose of showing that the estimates which we had used in the original estimate were conservative.

Q. In the light of this information which you have gathered together and which is disclosed in Ex. 86—Darling, what is your judgment with regard to the conservatism and reasonableness of the figures you employed in Exhibits 2 and 3, respectively?

A. That they are conservative.

Q. Are they lower than the figures disclosed as the actual cost?

A. No, sir, they are higher; the actual costs are higher than the prices which we have used.

Q. That is what I meant, the figures that you have in your estimates are lower than these figures of the actual cost in Ex. 86—Darling?

A. Yes, sir.

Q. Are these statements, and the information upon which they are based, gathered together from vouchers and records in your office?

A. Yes, sir.

Q. Are they, and have they always been, at the disposal of any representative of the State for examination and criticism?

A. Yes, sir, the records have been.

Q. That is what I mean. And they are still?

A. Yes, sir.

Mr. How: Ex. 86—Darling is offered.

Q. You invite examination and criticism of that statement, do you?

A. Yes, sir.

Q. And all the vouchers and records upon which it is based?

A. Yes, sir.

Q. Your Ex. 2, Mr. Darling, in the item of "Interest" allows interest for two and one-half years at four per cent, making a total of ten per cent interest upon the amount required for construction of the System in Minnesota as you have estimated it; and your Ex. 2 allows the same rate of interest and the same total of interest for the amount which, in your judgment, is necessary to construct the system. It appears to be claimed, in behalf of the State's estimate, that interest should be reduced by virtue of the fact that during a portion of the time necessary for construction of the System, whether as a whole or in the state, a part of the road, at least, would be under operation and would be earning an income, which ought to be offset against interest; what is your judgment with regard to that, based upon your experience in the construction of lines?

A. This estimate is based on the road being completed in a certain period, and it should be called the constructive period, but during that time, as soon as a piece of road is in shape to haul any freight, we do allow freight to be hauled, but it is during the period of construction; the road is in more or less completed shape, the bridges are temporary, the buildings are temporary, the track is not in first-class condition, and we only haul such freight as is absolutely asked for; in other words, they don't go after freight, they don't make a business of hauling for business because they can't handle it during the construction period.

Q. And don't want it?

A. And don't want it. They simply handle it for the con-

venience of the public; and for that reason there should be no earnings—there can be no net earnings during the construction period; but this estimate is based on interest ceasing as soon as the lines are in shape to haul any business on and this interest charged to profit and loss.

Q. Now, let us make that clear. You have fixed this period of interest at five years; that is, two and one-half years on the average?

A. Yes, sir.

Q. Your idea being that, at the end of five years, a considerable portion of the System, either in the state or as a whole, would be under operation and under charge of the operating department?

A. Yes, sir.

Q. Now, I understand you to say that you do not think that that operation would result in a net profit to be set against the interest charged for the balance of the term necessary for entire completion of construction?

A. I don't think, as a matter of fact, that the road should be turned over to the operating department until the road is completed or in shape to do first-class business and to ask for business; but this estimate is based on the fact that at the end of five years, or even before the end of five years, we can begin to handle business on these constructed or partially constructed lines.

The MASTER: At a profit?

WITNESS: No, sir, not at a profit.

The MASTER: Just for the convenience of the public?

WITNESS: Just for the convenience of the public. It would not do to go out and ask for passenger business and freight business while we are under construction, and even if we did, we could not get it, except non-competitive business. That is, for instance, if we turned over the road from here to Fargo and had it in an unfinished condition, had poor track, tempo-

rary bridges, temporary facilities, no good facilities at the terminals, the Northern Pacific could get only such business as would have to come that way. Through business would undoubtedly come the other way, over good and completed lines.

Q. Yes, but now I want to make it clear,—what would you do with your interest charge during the remainder of the period necessary for construction?

A. That is charged to profit and loss.

Q. By the operating department?

A. Yes, sir.

Q. And not the construction department?

A. Well, whoever operates it.

Q. Yes, that is what I mean.

A. Yes, sir.

Q. I want to make clear that by placing that period of five years you do not assume that at the end of five years the road would be earning an income to take care of interest?

A. Oh, no; no, sir.

Q. But merely that the loss would be charged to operating expenses rather than to construction account during that time?

A. Well, it would be charged to profit and loss.

CROSS-EXAMINATION

By Mr. O'BRIEN:

Q. Mr. Darling, this estimate which you have given here, including all of your testimony in this case, has been upon the theory of reproducing the Northern Pacific System at the present time?

A. Yes, sir.

Q. You have not attempted to give any statement as to the actual cost of constructing the System?

A. No, sir.

Q. Nor have you attempted to make any statement as to

the present actual value of the System?

A. No, sir.

Q. But your testimony, from the first time you testified in this case until the present, has been based entirely upon the theory of reproducing it as you have explained it?

A. Yes, sir.

Q. That theory is, I believe, that the territory traversed by the Northern Pacific is in the same condition that it is at present, with the exception that you imagine the Northern Pacific System eliminated?

A. Yes, sir.

Q. And that you are now to enter upon the work of reconstructing the entire System within the shortest possible space of time?

A. Within the most economical space of time, yes, sir.

Q. Within the most economical space of time with reference to length but the construction of the System?

A. With reference to the construction of the System and handling what business there is along the road, certainly.

Q. There never has been a railroad constructed in the manner which you assume this road would be reconstructed or reproduced?

A. Not to my knowledge.

Q. In the case of the Northern Pacific road, construction upon that road was commenced about 1870, was it not?

A. Pretty close to that, yes, sir.

Q. And by 1875 there was in the neighborhood of three hundred miles of road constructed in Minnesota?

A. I don't know as to the distances, but it was constructed through to Fargo.

Q. My recollection is that there was about 530 miles of road constructed and that that was divided between the state of Washington and the state of Minnesota—

A. Possibly that is true.

Q. —and in the neighborhood of 300 miles in Minnesota. And that road in Minnesota was operated as an independent section of road until about the year 1880, wasn't it?

A. I believe it was—no, there was some construction through from Fargo to Bismarck along about 1873.

Q. Well, I said from 1875 to 1880.

A. From 1875 to 1880, I think there was no construction done.

Q. And the eastern end of the road was operated as an independent road?

A. Yes, sir.

Q. And so it has been with every railroad which has been constructed in the United States, it has been constructed piece-meal, and the most important portion of the road first constructed; isn't that true?

A. Yes, sir, it is constructed as the public needs it, and oftentimes goes ahead of any needs.

Q. You have assumed, in giving this statement, that the method pursued by you for ascertaining the cost of reproduction under the circumstances described by you, is the proper method of ascertaining the value to be arrived at in this case?

A. I have made no estimate on the value, Mr. O'Brien.

Q. Made no estimate on the value?

A. No, sir.

Q. Well, in preparing these tables, do you mean that you did not proceed upon the theory that the cost of reproduction as given by you would show the value of the road, or that you simply adopted the theory which you were instructed to adopt?

A. No, my problem in this was merely to produce the cost of reproducing the railroad at this time.

Q. And in doing that you have taken the literal meaning of the word reproduction and have carried it to the full extreme under all circumstances?

A. I have given what I think is a conservative cost of reproducing the railroad.

Q. But I say you have taken that word reproduction in its literal meaning and have followed that theory out in every respect?

A. Well, I don't think so. For instance, in order to get at the cost of clearing and grubbing, we have had to assume the country in its original condition to get those quantities.

Q. Yes.

A. And in that way the estimate would appear a little high for clearing and grubbing. On the other hand, we have assumed the conditions in the cities exactly as they were then, and the cost of our grading and other work is estimated very much less than what it would be if we had to reproduce it in those conditions to-day.

Q. But what I said was that you have taken the term "reproduction" and have applied it to each item as it arose.

A. Yes, sir.

Q. Interest and contingencies and restoring the right-of-way to its original condition and then reproducing it in its present condition?

A. No, sir, we haven't done that. I have not figured on the cost of reproducing the things that make the value of a right-of-way. For instance, a right-of-way is covered with manufacturers, it is covered with industries, it is covered with leased property, I have not figured on the cost of reproducing those things.

Q. I am not talking about that, I am talking about the clearing and grubbing and the grading and matters of that sort.

A. Yes, sir.

Q. You first imagine the right-of-way in its original condition and then what it would cost to clear and grade up the road?

A. Yes, sir.

Q. Do you know what the cost of the original construction of the present Northern Pacific was per mile?

A. No, sir, I couldn't say.

Q. Well, you know that it was very much below what you have given as the cost of reproduction, do you not?

A. You mean the cost of the railroad as it was originally constructed?

Q. Yes.

A. Previous to 1875, something like that?

Q. No, previous to now.

A. Oh, I haven't the slightest idea what it cost.

Q. Well, you know that it was very much below what this cost of reproduction is?

A. Why, I think so, because the right-of-way cost very much less than what it costs now.

Q. Well, you remember that the original 530 miles that I spoke of, before the failure of 1875, was constructed and equipped for in the neighborhood of about $23,000 a mile, do you not?

A. I don't know that but perhaps it was, in the condition that it was then.

Q. And that the bond-issue following the reorganization—which I think commenced in 1880—was on the basis of $25,000 a mile?

A. Possibly; I couldn't testify to that, I have not posted myself upon it.

Q. And that, with a comparatively small deficit, that bond issue completed the System,—are you aware of that?

A. No, sir, I couldn't testify to that because i don't know.

Q. Well is it not true that the original cost of constructing and equipping the Northern Pacific was but little more than fifty per cent of this cost of reproduction as presented by you here?

A. I couldn't testify as to that.

Q. But as I understand it, you don't present your tables and testimony with the claim that they do establish the actual value of the Northern Pacific System, either in Minnesota or outside of Minnesota, as it exists at the present time?

A. No, sir.

By Mr. How:

Q. How long did you say you have been connected with the Northern Pacific and familiar with its System?

A. More or less since the spring of 1879.

Q. How did the Northern Pacific superstructure, its right-of-way and the superstructure on it, and its equipment at that time, compare with its right-of-way, superstructure and equipment at this time, with regard to the cost of construction, if prices and conditions are supposed to be the same?

A. Well, the cost of a railroad depends upon the capacity to which it is brought. The Northern Pacific railroad when it was first constructed was a line of very limited capacity, it simply had a little grading and the rails laid down, had no buildings, very few sidetracks, no terminal facilities and nothing that goes to make up a system. It had a railroad, it had a track, but a track of very limited capacity. The Northern Pacific has since been improved to almost its ultimate capacity, and that is what really is the basis of the cost of a railroad.

Q. What information and assistance does it give you, in making this estimate of the present cost of construction of the Northern Pacific as it now exists, to be advised as to just what it consisted of and what it cost in 1880 or 1873 or any other time?

A. It would be of no benefit at all in making this estimate.

Q. It is not the same system, I take it, at all?

A. No, sir.

Q. Not the same railroad, an entirely different and much improved railroad?

A. Yes, sir.

Q. And that has been accomplished by the expenditure of a great deal of time and a great deal of money, I take it?

A. Yes, sir.

Q. So that a comparison between the system as it existed in 1900 and as it exists in 1909 is of no value?

A. Not as showing the cost of reproduction.

Q. You say that you have not given, and that your estimate, any of them, do not purport to give, the actual value of the Northern Pacific System as an operating system to-day?

A. No, sir.

Q. And that your estimate is confined to the present cost of construction of the System as it exists?

A. Yes, sir.

Q. And equipping and acquisition of properties and so on?

A. Yes, sir.

Q. What is your general judgment with regard to the fact as to whether the Northern Pacific System as it now exists is more or less valuable than it would be if it were a new system, constructed at the cost which you have estimated, and turned over presently to the operating department?

A. Why, it is immensely more valuable.

Q. Are you prepared or equipped, do you think, to give the added value in dollars and cents?

A. No, sir, I couldn't do it.

Q. But your general judgment is that its value is very much greater than the figures which you have stated as the present cost of construction?

A. Yes, sir, it is.

WILLIAM G. JOHNSON,
recalled on behalf of Complainant, testified:

By Mr. BUTLER:

Q. I call your attention to an exhibit which was offered in evidence in connection with the testimony of Howard Elliott, which is marked in this case Ex. 79—Elliott, and is a statement under caption following, "Northern Pacific Railway Company, Lines in Minnesota, Statement of Operating Expenses, Divided as between Passenger and Freight Business, year ending June 30, 1908," and is subdivided under five principal heads, Maintenance of Ways and Structures, Maintenance of Equipment, Traffic Expenses, Transportation Expenses, General Expenses, and at the end of which is a summary. This statement, as I understand it, Mr. Johnson, shows two divisions: First, the territorial division, allocating to Minnesota its proportion of the operating expenses, and, second, a division of Minnesota's proportion of operating expenses between the freight and passenger business.

A. It does. It shows the total operating expense in Minnesota, or applicable to the line in Minnesota, and, as stated by you, divided between expenses applicable to freight business and expenses applicable to passenger business, as nearly as may be figured.

Q. We want to make it appear of record in this case how these divisions are made, and we will speak first as respects the territorial division.

A. The territorial division is made on various bases, depending on the class of expenditure. For example, train expense would be divided on the basis of train mileage; engine expenses would be divided on the basis of engine mileage.

Q. Are you familiar with the method of such territorial division which is employed by the Great Northern Railway Company and on which was explained in the Great Northern

rate case by the witness George R. Martin, the assistant comptroller?

A. Yes, sir.

Q. In his testimony each item was spoken of separately and the basis of division was given. Is this exhibit, 79—Elliott, made on the same basis?

A. Yes; we make all our subdivisions on the same basis as the Great Northern.

Q. And as respects the division between freight and passenger, the exhibit offered in evidence with Mr. Martin's testimony was marked Ex. 47, Martin; is the division between freight and passenger on Ex. 79—Elliott made on the same basis as the Great Northern exhibit?

A. As far as I know, yes. We follow the same practice as they do.

Q. Have you drawn off a memorandum indicating how the common operating expenses are divided between passenger and freight?

A. Yes, sir.

Q. I call your attention to a writing under caption "Northern Pacific Railway Company" dividing "common" operating expenses between passenger and freight. Does this writing state the basis of division on which Ex. 79—Elliott has been made?

A. Yes, sir, as far as I know.

Q. And you may state the substance of the exhibit in the record.

A. It is as follows:

"NORTHERN PACIFIC RAILWAY COMPANY.
DIVIDING "COMMON" OPERATING EXPENSES BETWEEN "PASSENGER" AND "FREIGHT".

"All expenses incurred solely in connection with either passenger or freight service are so charged. Expenses not wholly

assignable to either are divided as follows:

"MAINTENANCE OF WAY AND STRUCTURES.

"All accounts on basis of revenue service engine miles except, "Maintaining Joint Tracks, Yards and Other Facilities—Cr", which is based on the debit of the accounts involved.

"MAINTENANCE OF EQUIPMENT.

Superintendence	Revenue service engine mileage.
Steam Locomotives—Repairs	Individual engine mileage when possible, otherwise revenue service engine miles of current month.
Steam Locomotives—Renewals Steam Locomotives—Depreciation	Revenue service engine miles, preceding fiscal year.
Passenger Train Cars—Repairs Passenger Train Cars—Renewals Passenger Train Cars—Depreciation	Passenger.
Freight Train Cars—Repairs Freight Train Cars—Renewals Freight Train Cars—Depreciation	Freight.
Floating Equipment—Repairs Floating Equipment—Renewals Floating Equipment—Depreciation	Revenue train mileage.
Shop Machinery and tools Injuries to Persons Stationery and Printing	Revenue train mileage.
Insurance	According to class of equipment, except that premiums on locomotives should be divided on basis of revenue service engine miles, and premiums on floating equipment on basis of revenue train mileage.
Other expenses	Revenue train mileage.
Maintaining joint equipment at Terminals—Dr.	Revenue train mileage.
Maintaining joint equipment at terminals—Cr.	Same as debit accounts involved.
Equipment borrowed—Dr. Equipment loaned—Cr.	Revenue service engine, miles.

"TRAFFIC EXPENSES.

On basis of revenue train mileage.

"TRANSPORTATION EXPENSES.

Superintendence Dispatching trains Station employes Weighing and car service assns Station supplies and expenses	Revenue train mileage.
Yard masters and their clerks Yard conductors and brakemen Yard switch and signal tenders Yard supplies and expenses Yard enginemen Enginehouse expenses—Yard Fuel for yard locomotives Water for yard locomotives Lubricants for yard locomotives Other supplies for yard locomotives	Switch engine mileage in each yard representing work performed for each class of service.
Operating joint yards and terminals—Dr. Operating joint yards and terminals—Cr.	Revenue train mileage.
Road enginemen Enginehouse expenses—Road Water for road locomotives	Revenue service engine mileage. Class of service.
Fuel for road locomotives Lubricants for road locomotives Other supplies for road locomotives	Individual engine mileage.
Road trainmen	Class of service.
Train supplies and expenses Interlockers, blocks and other signals—Operation Crossing flagmen and gatemen outside of yard limits Drawbridge operation Clearing wrecks Telegraph and telephone—Operation Operating floating equipment Stationery and printing Insurance Other expenses	Revenue train mileage.
Crossing flagmen and gatemen within yard limits	Revenue service engine mileage.
Loss and damage—Freight Loss and damage—Baggage	Freight. Passenger.
Damage to property Damage to stock on right-of-way Injuries to persons Operating joint tracks—Dr. Operating joint tracks—Cr.	Revenue train mileage.

"GENERAL EXPENSES.

"All accounts under this head on basis of Revenue Train Mileage."

Q. I think the year ending June 30, 1908 was the first year for which the accounts of the Company were kept as indicated in Ex. 79—Elliott, and as prescribed by the orders of the Interstate Commerce Commission?

A. Yes, sir, that was the first year.

Q. Prior to that year, a somewhat different method of subdividing the operating expenses was followed?

A. There was a slight difference, but the difference was more in the classification itself than in the subdivision.

Q. The paper marked Ex. 87—Johnson is a statement under caption following, "Northern Pacific Railway Company, Lines in Minnesota, Statement of Operating Expenses, divided as between Passenger and Freight Business, year ending June 30, 1907." Is this a statement for the year named in the caption showing operating expenses for that year and showing the method of keeping the items in the account which was followed by your Company that year?

A. Yes, sir.

Q. And corresponds to Ex. 79—Elliott except the variation of the method which was required by the Interstate Commerce Commission?

A. Yes, sir.

Q. And the territorial division in Minnesota, and then the division of Minnesota's proportion of operating expenses between freight and passengers are made on the same basis as they were in Ex. 79—Elliott?

A. Practically the same.

Mr. BUTLER: Complainant's Ex. 87—Johnson is offered in evidence.

Q. Ex. 88—Johnson is a statement under caption "North-

ern Pacific Railway Company, Operating Expenses in Minnesota, divided as between Freight and Passenger Business, Fiscal year ending June 30, 1906." This statement shows four items, (1) conducting transportation, (2) maintenance of equipment, (3) maintenance of way and structures, (4) general expenses. Is this statement on the same basis as your Ex. 78?

A. Yes, sir.

Q. Except it shows only the totals under each heading and not the details?

A. Not the details. It was not possible to work up all the details within the time allowed.

Q. And the territorial division and the division between freight and passengers is made on the same basis?

A. On the same basis as the 1907 statement.

Q. I want to compare Ex. 79—Elliott with Ex. 87—Johnson and Ex 88—Johnson. Is there included in operating expenses in Ex. 79—Elliott any item or items which are not included in the operating expenses of the two prior years, 1906 and 1907?

A. Yes, the 1908 figures, under the classification of the Interstate Commerce Commission, include depreciation of equipment; and no depreciation, or practically none, was taken up in the years 1906 and 1907.

Q. I call your attention to Ex. 79—Elliott and ask you to indicate the depreciation items to which you refer.

A. Under the head of maintenance of ways and structures we have depreciation of work equipment, amounting to a total of $9,883.92.

Q. Can you tell what percentage of value was used to arrive at that figure?

A. Yes, sir; on work equipment we used six per cent per annum.

Q. Go on.

A. Under the head of maintenance of equipment there is depreciation of steam locomotives, amounting to $167,322.26; depreciation of passenger train cars, $59,756.75; and depreciation of freight train cars, $341,657.43.

Q. Can you indicate the percentage that was applied in each instance to produce the figures?

A. On passenger and freight train cars we used six per cent per annum, and on the locomotives we used five per cent per annum on the original cost, or, in the absence of a knowledge of the original cost, on the estimated cost of the equipment.

THE MASTER: As new?

WITNESS: As new, yes, sir.

Q. Take box-cars, for example, or freight cars generally, are there well-recognized rules for estimating the cost?

A. There has been a great deal of discussion in regard to this question of depreciation of equipment.

Q. Well, I meant to get at the base, in the first instance; I was not intending to speak of the rate of per cent of depreciation that should be used; I was thinking of the master carbuilders' rules for establishing the value of cost of cars.

A. Yes, sir, the master carbuilders' rule is, as I remember it, six per cent per annum, figured as depreciation, in the event of the loss of a car on another line and its payment to be provided for by the line causing the wreck.

Q. They have rules, also, fixing the value of the car—

A. Yes.

Q. —taking into account its value as new, and a depreciation depending upon the number of years it has been used?

A. Yes, sir.

Q. And in getting at the value, as well as the percentages, you followed these rules of the master carbuilder?

A. We had the master carbuilders' rule in mind, but some figures were made by the Company, and in fact there was a

general investigation of the problem, before those percentages were adopted and approved by the President of the Company.

Mr. BUTLER: Exhibits 87 and 88 are offered in evidence.

Q. I call your attention to Ex. 80—Elliott and Ex. 80-A—Elliott, which exhibits were introduced in connection with the testimony of Howard Elliott. Ex. 80—Elliott is under caption following, "Northern Pacific Railway Company, Statistics for Business year ending June 30, 1908." Ex. 80-A—Elliott, is a statement under caption "Northern Pacific Railway Company, Income in State of Minnesota fiscal year ending June 30, 1908," and was introduced by way of explanation of the item on page 3 of Ex. 80—Elliott, to-wit, "Total Net Operating Revenue, $5,680,696.67." Was this statement, Ex. 80—Elliott, made under your direction?

A. Yes, sir.

Q. And from the records in your office?

A. From the records in our office and in other offices of the Company.

Q. From the records of the offices of the Company?

A. Yes, sir.

Q. And truthfully sets forth the facts purporting to be represented thereon?

A. To the best of my knowledge and belief, yes.

Q. Calling your attention to Ex. 80-A—Elliott, "Income in the State of Minnesota," are there any items omitted which should be included, or any items included which should be omitted in that exhibit to correctly show what may be called Minnesota income for the year ending June 30, 1908?

A. There are; that is to say, looking at this question of income on the basis of the total income received from the property of the Company in Minnesota, there are several items that should have been changed, principally due to our ownership in terminal companies, as follows: In the original Ex. 80-A, turned in by Mr. Elliott, we should have given the

State credit for the rentals that we collected from other companies for the use of the Duluth Union Depot, of which I understand the full value was included in the valuation of our property in Minnesota; that was $23,866.24.

Q. That is for the year ending June 30, 1908?

A. For the year ending June 30, 1908.

Q. Go on.

A. Also under the head of "Rentals paid for tracks, yards and other property in Minnesota," there were included items on account of the Duluth Union Depot, the St. Paul Union Depot, and Minnesota Transfer Railway Company, making a total of $20,788.25, which should be taken out and not looked upon as rentals paid for the use of the property, in view of the fact that the valuation of such property is included, as I understand it, in all these valuation figures.

Q. That is, the Northern Pacific's proportion?

A. The Northern Pacific's valuation figures that have been turned in here in this case This will make the Minnesota income, as revised, for the year ending June 30, 1908, $5,431,514.56.

Q. As against $5,386,860.07 shown on Ex. 80-A—Elliott, and also to be compared with or read in connection with the item on Ex. 80—Elliott on page 3, to-wit, "Total net operating revenue, $5,680,696.67?"

A. The last item is not changed by my exhibit.

Q. Have you made an exhibit explanatory of the points you have just referred to in connection with Ex. 80—Elliott and Ex. 80-A—Elliott?

A. Yes, sir.

Witness produces statement marked for identification "Complainant's Ex. 80-B—Elliott (Johnson)."

Mr. BUTLER: This statement is offered in evidence.

CROSS-EXAMINATION

By Mr. O'BRIEN:

Q. As I understand it, Mr. Johnson, upon the books of the Northern Pacific the cost of operation, as between freight and passenger service, is subdivided for the year 1906 as shown by you on Ex. 88—Johnson?

A. Yes, sir.

Q. That is, you have shown the total amounts as to each of those items under the four general classifications?

A. Under the four general heads, yes, sir.

Q. And those expenses are divided, upon the books of the Northern Pacific road, for the year 1907, as shown on Ex. 87—Johnson?

A. Yes, sir.

Q. And are in the same manner divided upon the books of the Northern Pacific Company for the year ending June 30, 1908, as shown by Ex. 79—Elliott?

A. Yes, sir.

Q. Now, as I understand you, you say the difference in the methods adopted for the three years is very slight.

A. There was a change in the classification of operating expenses as between the years 1906 and 1907 compared with 1908.

Q. When you say a change in classification, do you mean the item came under the head of Conducting Transportation, Maintenance of Equipment, Maintenance of Road and Structures and General Expenses, or do you mean as classified between freight and passenger?

A. No, as to the classification of the expense itself, but not as between freight and passenger. There might have been a few changes in the method of subdividing between freight and passenger.

Q. But so slight as to be negligible?

A. I don't think it would cut very much figure.

Q. So that, whatever difference there was in those different years, it was simply a difference in the classification?

A. In the classification.

Q. And not a difference in the division of that particular item between freight and passenger?

A. No, sir, the division between freight and passenger was not materially changed.

Q. So that for the purpose of ascertaining the relative cost of transacting freight or passenger business, any one of these years would afford as good a guide as the other?

A. Would be a very fair approximation.

Q. In the same way that I believe we have agreed that, taking the months of April and October, you could arrive at a fair approximation of the general course of the business for a year?

A. Yes, sir.

Q. And do you agree with Mr. Parker, that it would not make very much difference in doing that, whether you took those months from the same fiscal year or the same calendar year?

A. I don't think it would cut much figure.

Q. The classification found in Ex. 79—Elliott is the classification of accounts provided for by the order of the Interstate Commerce Commission?

A. Yes, sir.

Q. But the subdivision of those accounts between freight and passenger is a matter of your own individual judgment?

A. Yes, sir—not *my* individual judgment.

Q. Well, I am not speaking of you personally; that is a matter upon which there is no direction made by the Interstate Commerce Commission?

A. Not any at all, no, sir.

Q. Is that also true with regard to the division territorially?

A. Yes, sir. While the Interstate Commerce Commission requires the Northern Pacific to make territorial reports—that is to say, the Northern Pacific is split into three districts—they have never prescribed any rules under which we were to subdivide any traffic or expense passing over these lines between the three districts.

Q. In regard to this classification, all that the Interstate Commerce Commission requires is that certain expenses shall be placed under either one of the four general headings we have spoken of?

A. Well, in the case of 1908 there are five headings.

Mr. BUTLER: "Traffic expenses" is added as a separate heading.

Mr. O'BRIEN: Yes.

Q. And when you refer to the classification of accounts you are referring to classifying those accounts under one of those five heads—

A. Yes, sir.

Q. —but are not referring at all to the division between freight and passenger?

A. Not at all, no, sir.

Q. In dividing the total of each item, without regard to this classification, between freight and passenger, have you attempted to divide that particular item as to rules apparently applicable to itself, or have you taken a general rule for all of the items appearing under one classification?

A. No, we first charged to either freight or passenger business the expense that is wholly and solely incurred on account of either class of business, leaving items that we term "common," or, in other words, items that are common to both freight and passenger business, to be divided on the basis of the rules that I have submitted.

Q. What proportion of this total expense is charged directly?

A. Anywhere from fifty-five to sixty-five per cent.

Q. Are you able to give the total amount?

A. In dollars and cents?

Q. No, in percentages.

A. I don't quite catch your question.

Q. Well, for the year 1907, for instance, the total operating expenses were $7,718,369.14; what proportion of those expenses were you able to charge directly to either freight or passenger?

A. Well, I should say about fifty-three per cent, but I am not positive as to the figures because I haven't recently made any special investigation of that point.

Q. I call your attention to the first item appearing upon each exhibit 79—Elliott and 87—Johnson, "Station Agents, Clerks and Laborers;" there was a considerable portion of that item which could be allocated directly?

A. Yes, quite an amount.

Q. And a considerable amount, or a number of items which were common?

A. A number of items were common; take, for example, some station where there is one agent, or an agent and an operator who are handling both freight and passenger business, it would be impossible to divide that except upon an arbitrary basis.

Q. Now, on what basis was that item divided?

A. Such items as could not be allocated to either freight or passenger were divided on a revenue train mileage basis.

Q. That item includes the expenses of clerks and employes at the terminals, does it not?

A. Yes, sir.

Q. And the clerks and employes at the terminals can be pretty well separated between freight and passenger?

A. Yes, sir; they are, in fact.

Q. And many of the stations throughout the state main-

tain more than one employe, so that you are able to separate the expenses?

A. They maintain more than one employe at a number of stations outside of the terminals, but in the majority of cases their duties are so mixed that it is impossible to say that a man's wages shall be charged to either freight or passenger business.

Q. Now, when you spoke of revenue train mileage, you meant the entire revenue train mileage, without reference to state or interstate?

A. Yes, sir; the train mileage in the state, or the train mileage on a particular operating division, whichever in our judgment would produce the most accurate subdivision.

Q. Where the words, "Class of Service" occur in the rule or key which you have read into the record, that, I presume, means that the items are charged direct?

A. Except in the case of trainmen and engineers employed on mixed trains; in that case, twenty-five per cent of the expense would be charged to passenger business and seventy-five per cent to freight business; in all other cases it would be either freight or passenger. I want to make the further reservation, that in the case of trainmen or engineers employed on work trains, such items would be charged to the work upon which the men or the trains were employed.

Q. In the great majority of cases the expenses have been divided either upon the revenue train mileage basis or the engine mileage basis?

A. Yes, sir; that is, a very large proportion of the expense has been so divided.

Q. You don't offer this division between freight and passenger as an exact division, do you?

A. No, sir.

Q. Merely as an approximation?

A. Merely as a close approximation. In my judgment, any

basis that might be used is susceptible of criticism from one standpoint or another.

Q. And, of course, under circumstances of that sort, the more closely this division is made and the more each item is considered in detail and with reference to the particular character of the services involved, the more nearly correct the division would be likely to be?

A. Yes, sir.

Q. It would not, in your judgment, be a difficult matter, by examining each item in detail and applying a method of division to that particular item which would be apparently more nearly correct, to arrive at an approximation which would be five or ten per cent nearer the exact difference than is shown by these tables, would it?

A. I don't know of any other method which would produce more accurate results than these. As I have said before, any basis that might be considered would be susceptible of criticism (and I may say adverse criticism); it is not, in my judgment, practical to tell exactly how much expense should be charged to freight business and how much to passenger business.

Q. Take, for instance, the first item that I spoke of, "Station agents, clerks and laborers," the expenses connected with that item in the large terminals are peculiar to themselves?

A. Yes, sir; for instance, at Minnesota Transfer we know nothing is handled there but freight business, consequently there can be no question about where the expense should be charged.

Q. And you know, also, that in your general offices you have a large number of clerks engaged in the freight?

A. Well, those expenses are apportioned on a train mileage basis.

Q. Now, the smaller stations throughout the state of Min-

nesota are in an entirely separate class from the terminal stations?

A. Yes sir; that is, in respect to the division of expense.

Q. If those stations were treated by themselves, don't you think that you would be more likely to come at a correct approximation of the cost of their maintenance, as between freight and passenger, than you would by including them with the terminal stations?

A. Well, let me make it clear to you that we don't put all the station expense in a pot and then prorate that on a train mileage basis. Wherever we can allocate the expense or know that the expense is on account of freight business, we charge it to freight expenses.

Q. Yes, I know you said that, Mr. Johnson.

A. Now, even at small stations where we know, from the character of work done by the employe, that he is connected with either the freight or passenger business, why, it goes to the proper classification of expense.

Q. But what I am asking you is whether or not, when you have these stations which are of such a different class, each being in a class by itself, you would not be more likely to arrive at a correct division of the expenses at those stations attributable to freight or passenger business if you would consider each class by itself and apply some rule that was more clearly applicable to that class of stations?

A. I don't think that the result would be any closer in the end, taken as a whole.

Q. Ex. 80—Elliott, read in connection with Ex. 80-A—Elliott and Ex. 80-B—Elliott (Johnson), shows the actual earnings of the Northern Pacific Company in Minnesota for the year ending June 30, 1908?

A. Yes, sir, as far as our records show.

Q. And that, of course, is on the basis of the rates actually in force?

A. Actually in force during the year, yes, sir.

Q. That includes the two-cent passenger fare and the rates fixed by the order of the Commission of September 6, 1906?

A. On merchandise, yes.

Q. And all the modifications of that order with reference to the distributing points?

A. Yes, sir.

Q. In other words, the law prescribing maximum passenger rates and the order of the Commission, were in full force during that entire year?

A. Yes, sir.

Q. And this is the amount earned under those rates?

A. Yes, sir.

Q. This includes the passenger earnings?

A. Yes, sir.

Q. Have the interstate passenger earnings, as given by you in this exhibit, been computed upon the same basis as the earnings were computed for the purpose of taxation?

A. Yes, sir.

Mr. BUTLER: That is, a mileage prorate?

Q. That is, on a straight mileage prorate?

A. Yes, sir, on a straight mileage prorate.

Q. Without regard to the local rates in any of the territory covered by the haul?

A. Without regard to the state rates.

Q. Of any of the states?

A. Of any of the states over which the passenger traveled.

Q. And the exact and true amount of intrastate earnings, I presume, are shown in this Ex. 80-B—Elliott (Johnson)?

A. Yes, sir; it takes in all the intrastate earnings.

Q. That is, in other words, the error that occurred in some of the former reports to the State is not found in this exhibit?

A. The error that you refer to would not affect this statement one way or the other. The error that you refer to cov-

ered the classification as intrastate of business that was in fact interstate; business that was rebilled, for example, at Minnesota Transfer and Duluth, but which had its origin in a state outside of Minnesota and was destined to a point in Minnesota, or, vice versa.

Q. Well, now, it would affect Ex. 80—Elliott, because, as I remember, in that exhibit the state and interstate earnings are divided?

A. As regards Ex. 80—Elliott, the correct subdivision of the business as between intrastate and interstate is shown; in other words, it takes into consideration the percentage of error that was found in the classification.

Q. Did you ascertain, in your judgment, correctly the percentage of error that had been made in the classification for former years?

A. Yes, I think that the percentages as arrived at were properly applicable to this year. I don't believe that the division as between intrastate and interstate would be affected very much one way or the other as against an actual reclassification of the business.

Q. There is no difficulty, that you know of, in ascertaining the exact facts with regard to that matter?

A. There is a great deal of difficulty, Mr. O'Brien. It would mean a tremendous amount of work. We would have to examine practically every way-bill handled in the state of Minnesota.

Q. Well, did you do it?

A. We did that for two months of 1906, and from that we arrived at the error in classifying the business.

Q. Well, assuming, as you have said, that those two months gave you the correct percentages, you had no difficulty in ascertaining the facts?

A. As regards 1908?

Q. As regards 1906 or 1907 or 1908.

A. No, sir; applying the same percentage we could arrive at the figures.

Q. What I say is that you had no difficulty in ascertaining those facts.

A. Well, it took a considerable period of time to investigate the two months that I have referred to.

Q. Well, the difficulty was entirely a question of time?

A. Time and men, yes, sir.

Q. And you took the time and procured the men?

A. Yes, sir.

Q. And arrived at the facts?

A. Yes, sir, to the detriment of all our other business.

Q. In ascertaining those facts and making that correction you ascertained to your satisfaction the true amount of intrastate business for the period to which your attention was directed?

A. Yes, sir.

Q. The amount of interstate business carried in this state which was received in this state from other lines and which originated outside of the state?

A. Yes, sir.

Q. And that freight is carried at your local rates?

A. Well, I don't know that it is all carried at the local rates; I know some of it is, but a lot of the business is also rebilled at a proportion of a through rate.

Q. Isn't that proportion of the through rate always the amount of the local rate?

A. Not always, no, sir.

Q. Almost always?

A. Well, as to that I can't say; I am not familiar with every tariff that is used on our business.

RE-DIRECT EXAMINATION

By Mr. BUTLER:

Q. I think it is clear from your testimony in answer to Mr. O'Brien's question, that the Interstate Commerce Commission does not prescribe any rules for the division of expenses between the freight and passenger business?

A. No, sir, none whatever.

Q. Either upon the whole line or upon any part of it, or with respect to any kind or class of the passenger and freight business?

A. No, sir.

Q. And neither does the state Commission?

A. No, sir.

Q. You spoke of the lines of your Company touching three interstate commerce districts; those districts are not coextensive with the boundaries of any state?

A. They are, yes, sir. The first district is made up of all lines east of the North-Dakota-Montana state line. The next district is made up of all the lines in the states of Montana and Idaho, and the third district is made up of all the lines in Washington and Oregon.

Q. Are these what are known as the Interstate Commerce Commission groups?

A. Groups, yes, sir, territorial groups.

Q. I wanted to make this matter of groups clear. How many groups are there in the country, interstate groups?

A. As to that I don't know.

Q. As many as ten, aren't there?

A. I think there are more than ten groups.

Q. Do you remember the number of the three that are touched by your road?

A. I do not, no, sir.

Q. But you do touch three different ones?

A. Three different districts, territorial districts.

Q. There are certain territorial divisions of interstate commerce statistics as affecting the territory designated as a specific group?

A. Yes, sir.

Q. But that has nothing to do with division on territorial lines as regards the state?

A. No, sir.

Adjourned until Tuesday, May 11, at 10 o'clock A. M.

FEDERAL BUILDING, St. Paul, Minn., Wednesday, May 19, 1909, the hearing was resumed at 10 o'clock A. M., having been continued from May 11th.

Mr. BUTLER: There is one point that has occurred to us since the stipulations of yesterday: we have no doubt it was so understood by the gentlemen on the other side, and that is this, to-wit, that the stipulations be received in evidence and read by the Master and the Court and given like effect as if the witnesses had appeared and testified in the manner it is admitted by the stipulations they would have testified had they appeared.

The MASTER: I supposed that was the purpose of the stipulation.

Mr. O'BRIEN: I supposed so.

(See record in Great Northern case under date of May 18th.—Reporter.)

CONWAY W. HILLMAN,

recalled on behalf of Defendants, having been sworn on January 26, 1909, (page 2481 transcript) testified:

By Mr. O'BRIEN:

Q. What is your name?

A. Conway W. Hillman.

Q. What is your age?

A. Fifty-two.

Q. Where do you reside?

A. Residence Evanston, Illinois, place of business, Louisville, Kentucky.

Q. Have you been engaged, for some months past, in examining the accounts and records of the Northern Pacific Railway Company and in making certain computations from those accounts?

A. Yes, sir.

Q. What experience have you had as an accountant, and particularly with reference to railroad accounts?

A. I graduated from Lafayette College, at Easton, Pennsylvania, as civil engineer—

Q. In what year?

A. In 1874; and—

Q. What educational institution had you attended previous to that time?

A. I was a graduate of the regular scientific course at Dickinson College, Carlisle, Pennsylvania, in 1873. I then did some engineering work on the engineering corps of the old Quincy, Alton & St. Louis road, which now, I believe, has been absorbed by the Burlington system, and on the Cumberland Valley branch of the Pennsylvania Company. I then entered the regular operating service of the Cumberland Valley road, and served successively as telegraph operator, scales clerk, freight clerk, ticket clerk, superintendent's clerk, agent, assistant dispatcher, and finally dispatcher of that road, being with them about five years. I then left the service of the Cumberland Valley road and entered that of the Northern Pacific Railroad Company (the present Northern Pacific Railway Company) in the treasurer's office in the city of New York, in the year 1881. My business there was that of stock-book keeper at first. I mean by that to keep the record of the stockholdings of capital stock. The next year I took charge of the

stock and bond transfers of the Northern Pacific road and their payments of dividends and their payments of coupons. I worked in almost every capacity in that office, and in 1888 was elected assistant treasurer of the Northern Pacific road, with headquarters in New York.

Mr. BUTLER: In 1888?

WITNESS: In 1888. In 1890, the Northern Pacific road had become the lessee of the Wisconsin Central and what was then called the Chicago terminals (now principally the property of the Chicago Terminal Railway Transfer Company,) and I was transferred, still as assistant treasurer, from New York to Chicago, and the Northern Pacific Express Company was also transferred from St. Paul to Chicago and placed in my charge. I served the Northern Pacific Railroad Company and its leased lines and the express company as assistant treasurer until the time that they were placed in the hands of a receiver (in 1894, I believe,) and from then until 1895 I was in the employ of the receiver of the Northern Pacific road.

Q. In 1893, I think, the receiver was appointed?

A. I forget the exact date.

Mr. William G. JOHNSON: August 18, 1893, I think.

WITNESS: 1893. I then left the Northern Pacific road and went as Auditor of the Metropolitan West Side Elevated Railroad Company of Chicago. This company was newly organized and had no accounts of any kind. I organized their accounting system, systematized their expenditures, introducing a classification of expenditures based upon the Interstate Commerce Commission classification. The Metropolitan West Side Elevated Company is an electric railway company. This, as far as I know, was the first classification of electric railway accounts on lines similar to those of the steam railways that was made. I systematized my shops there and the road, putting them on a practical cost basis, and this system of accounting was followed practically by electric

railway companies up to the change by the Interstate Commerce Commission on July 1, 1907, since which time I suppose that it has been regulated by the new rules of the Interstate Commerce Commission, I have not given it any attention since then. In 1903 I left the Metropolitan West Side Elevated Railroad Company, and was for one year with the Chicago, Rock Island & Pacific Railroad Company, first in their comptroller's office and afterwards in their insurance department. They had started a new insurance department and had practically no data to go on. I left the Rock Island road in 1904, and for a year and a half was engaged in accounting work of various kinds. In 1906 I went with the accounting department of the Baker-Vawter Company, of Chicago, as consulting accountant. I remained with this company a little over a year, and then took charge of the cost-accounting department of the Indiana Audit Company, of Indianapolis. In 1907, I left the Indiana Audit Company and established the company of which I am at present the head, the Mutual Audit Company, with headquarters at Louisville, Kentucky. At the time that this was established, we were engaged by the railway commission of the state of Kentucky to analyze and audit the accounts of the various railway companies in the state of Kentucky with reference to the rate-suits which were on at that time in the state. Since that time, I have been engaged continuously in this analysis of accounts for railroad rate purposes for the states of Kentucky, North Carolina, Alabama, Florida, Minnesota and South Dakota. At present, the accounts of South Dakota, Minnesota and Florida are active, the others are awaiting possible developments for further audits or analyses. I have been called into consultation incidentally with other states, but have not done consecutive work for them.

Q. In the course of the character of work which you are now engaged upon, has it been necessary for you to familiarize yourself with the rules and directions of the Interstate Com-

merce Commission as to the keeping of railroad accounts?

A. Certainly it has.

Q. And as to the methods employed by different state commissions with reference to the same subject?

A. Yes, sir.

Q. Are you familiar with the rule adopted by the Railroad & Warehouse Commission of Wisconsin in what is known as the Buell case?

A. Yes, sir, I am quite familiar with that.

Q. And are you familiar with the general methods of bookkeeping and preservation of records in use upon the principal railroad systems of the country?

A. Yes, sir.

Q. When were you first employed to make an examination of the records of the Northern Pacific Railway Company by the State of Minnesota?

A. I was employed by the Commission in the latter part of May, 1908; I came to Minnesota and started the active work on the 2nd day of June, 1908.

Q. Mr. Staples, of the Commission, called upon you, in Louisville, I think, in May, 1908?

A. In 1908, Mr. Staples, yourself and Mr. Yapp, I believe, visited us at that date.

Q. You came here on June 2, 1908, and what portion of your time since then has been devoted exclusively to the work of examining the records of the Northern Pacific?

A. I should say that probably all of it, with the exception of three or four weeks. I have kept in touch with the work all the time, taking sometimes a day or so off duty here to attend to the other audits and analyses that were going on, but I have given this my personal attention.

Q. Well, have you given all of your attention to the accounts of the Northern Pacific, or has part of this time been devoted to

the accounts of the Minneapolis & St. Louis and the Great Northern?

A. A part of the time to the Minneapolis & St. Louis and Great Northern.

Q. Your time has been given almost exclusively to the Minnesota business?

A. All to the Minnesota business, yes, sir.

Q. And principally to the Northern Pacific business while here?

A. Yes, sir.

Q. Who has assisted you principally in this work?

A. I have had the assistance, from the commencement of the work, of Mr. Thomas Yapp, the assistant secretary of the Railroad Commission. Together we have employed men in a clerical capacity, working under our direction as we have needed them, the force varying from eight to fifteen or sixteen men. All work has been done under our directions.

Q. How much of Mr. Yapp's time has been occupied in this work?

A. Almost as much as that of mine. During the summer, there was an interval, owing to some illness, I believe, and vacations, where for about a month I did not have Mr. Yapp's continuous assistance, he was called off for other purposes, but we met every day and talked over matters which would come up.

Q. I desired to ascertain whether or not Mr. Yapp had devoted his time (such time as he devoted to business) exclusively to this work, or whether he was engaged largely in performing the general duties of his office of assistant secretary.

A. He devoted his time almost exclusively to this business. It was only when the absolute necessity arose for his leaving the work that he did anything outside of this work.

Q. In addition to Mr. Yapp, you have had a force, you say, of from ten to fifteen men or eight to fifteen?

A. Eight to fifteen.

Q. Upon whom has fallen principally the duty of ascertaining the exact data upon which your conclusions and calculations have been based?

A. If you mean by that what data should be taken, that falls upon Mr. Yapp and me to determine; if you mean the clerical execution of the action which we determined to take, it would fall upon this force of men,—and Mr. Smith has been found by me to be a competent man to supervise the details of that business.

Q. Will you please state the main object of the investigation being conducted by you with reference to the transactions of the Northern Pacific Railway Company, the ultimate object which you sought to attain?

A. The ultimate object which I sought to attain was the earnings and operating expenses of the intrastate business; and, necessarily, that would carry with it the operating percentage of intrastate business and show the net earnings applicable to interest and dividends.

Q. The ultimate facts sought by you, then, were the total earnings in Minnesota and the total operating expenses in Minnesota?

A. Yes, sir, in total, and for interstate business and intrastate business.

Q. For both freight and passenger?

A. Yes, sir.

Q. The operating expenses in Minnesota chargeable to freight?

A. Yes, sir.

Q. And the portion of such operating expenses attributable to interstate freight and intrastate freight?

A. Yes, sir.

Q. The total operating expenses chargeable to conducting the passenger business in Minnesota?

A. Yes, sir.

Q. And the total portion of such operating expenses attributable to interstate and state passenger business, respectively?

A. Yes, sir.

Q. When you entered upon this employment, did you receive any instructions from the Railroad & Warehouse Commission of the state of Minnesota as to how you were to proceed?

A. I received quite decided instructions from the Railroad & Warehouse Commission—which were that I should show the facts in the case to the best of my judgment and as shown by the records of the companies; that this should be done regardless of any consequences which might ensue to the case in hand. I outlined to the Commission the general plan which I had for obtaining this result, and it met with their approval. Beyond that they dictated no means or methods, but left those to me entirely. They have followed, from time to time, what I have been doing and have approved of the methods which I adopted.

Q. In arriving at the conclusions which you have arrived at, state whether or not you have accepted the accounts, vouchers and records of the Northern Pacific Railway Company as to the basic facts.

A. I have accepted the vouchers and records of the Northern Pacific as showing the correct state of their operating expenses, and I have also accepted the division of the Northern Pacific Railway Company which they made between the states, as I considered where these accounts could not be allocated by them to states,—which they have done wherever it was possible —that their basis of division between states was just and reasonable.

Q. Therefore, the total gross operating expenses for the state of Minnesota, as contained in your conclusions, is the same as the total operating expenses in Minnesota claimed by the Northern Pacific Company in the testimony of this case?

A. Yes, sir.

Q. Statement marked "Defts' Ex. 3-L—Hillman," entitled, "Northern Pacific Railway Company, Statement of Earnings and Income; Operating Expenses and Taxes, 1906-1907, on basis of 12.33 per cent, being Interstate business as shown by Johnson's Ex. 54," shown witness. State whether or not your final conclusions with reference to the matters stated in Ex. 3-L are contained in that exhibit.

A. Yes, sir, they are. Mr. Johnson's revision of figures, showing that only 12.33 per cent of the tonnage is intrastate, has been accepted by me in making this exhibit 3-L.

Q. Now, will you please take up each item of Ex. 3-L and explain it? After that I will ask you to present the tabulations, in detail, showing the method by which the conclusions stated in Ex. 3-L have been arrived at; but, first, just state what each item purports to be.

A. The first line of Ex. 3-L shows the freight earnings, from Table 8 of the subsequent exhibit to be offered, and represents the freight earnings upon 14.83 per cent of the tonnage of the road for the year ended June 30, 1907, or, as it is called in this exhibit, the year 1906-07. These figures were afterwards revised by Mr. Johnson, the assistant comptroller of the Northern Pacific Railway Company, on his Ex. 54. The reasons for this revision were stated by him at that time, and will be referred to by me during the progress of the discussion of the subsequent exhibit. In order that we may be on the same basis, I have accepted Mr. Johnson's percentage of 12.33 as being the intrastate tonnage and earnings, instead of 14.83 as shown upon my exhibit. We find that 12.33 per cent is 83.13 per cent of 14.83, and therefore we have reduced our earnings from Table 8 to 83.13 per cent, giving us the figure of $1,760,422.88, as shown upon Ex. 3-L. We have also taken 83⅓ per cent of the deductions which are shown upon Table 16 of the exhibit which is to be hereinafter filed, and which deduction amounted, on Table 16, to $89,916.07, and deducted this percentage ($74,

747.23), from the earnings, giving gross earnings, as per Johnson's exhibit, after all deductions due to the operation of the proposed legislative rates and the Commission's rates are in effect, of $1,685,675.65. The operating per cent of intrastate freight, as shown upon Table 16 of the exhibit which is to be filed, amounts to 57.631 per cent, which gives an operating percent on the above earnings of $982,998.03. The taxes are 4 per cent upon the gross receipts in the state of Minnesota, and amount to $67,427.03, a total deduction from the earnings on account of operating per cent and taxes of $1,050,425.06, leaving net earnings, freight intrastate, $635,250.59.

We now come to the passenger business. The earnings on Table 16 have no changes made; none of any account are claimed. An investigation of the Northern Pacific Railway Company's passenger earnings showed a very small percentage due to the same trouble which originated in our freight traffic. This was so small that we mutually agreed it should be neglected. Am I correct, Mr. Johnson?

Mr. JOHNSON: Yes, sir; that is to say, I have made my figures taking into consideration the error, which was a very small one.

Q. I think it would be better, Mr. Hillman, if you would not assume to speak for anybody else, but just state your conclusions—

A. Yes, sir.

Q. —and avoid getting into colloquial disputes.

A. All right, sir. Then I have taken the passenger earnings from Table 16, with no change from the figures on that table on account of any small deductions from interstate earnings being taken in by the Northern Pacific in error as an intrastate earning.

Q. Those amounted to $1,139,610.40?

A. Yes, sir, the operating expenses, as shown upon the same table, amounting to $671,200.12, the taxes, 4 per cent, on the

above amount, to $45,584.42; a total deduction from the above earnings of $716,784.54, leaving net passenger earnings $422,825.86. The next item is miscellaneous earnings. The miscellaneous earnings, as shown upon Table 14, amount to $69,434.02. We find that these miscellaneous earnings, accruing on items which are both freight and passenger, should bear a reduction of 10.76 per cent on account of the correction, as shown in Mr. Johnson's Ex. 54, on freight combined with the full hundred per cent shown upon passenger earnings. We therefore take 89.24 per cent of the above earnings, giving us $61,962.92, from which we deduct 4 per cent for taxes, giving us a net miscellaneous earnings of $59,384.40, a total of net earnings for freight, passenger and miscellaneous of $1,117,460.85. To this should be added certain other sources of income as shown upon Table 16, amounting to $107,895.65 in gross. The percentage applicable to income under the above deductions, following Mr. Johnson's Ex. 54, show that 87.525 per cent of this income is applicable to intrastate, giving us $94,435.67 income, which added to the net earnings as above, give us $1,211,896.52 applicable to interest and dividends on account of intrastate business in the state of Minnesota.

Q. Now, I don't want to go into it in detail at this time, but simply to call attention to the fact: in the report of the Northern Pacific Railway Company to the state of Minnesota, Minnesota is credited with the total miscellaneous earnings received in this state, is it not?

A. Not altogether, no, sir.

Q. Well, how with regard to mail for instance?

A. They are credited on the statement with the entire mail earnings of $208,000.

Q. Have you credited the intrastate business in the state of Minnesota with that entire amount in your computations?

A. No, sir.

Q. You have divided the revenue from mail upon the same

basis that you have ascertained with reference to the inter and intrastate business?

A. Yes, sir, I have made a division which I consider equitable and which will show in the following computations, and divided that $208,000 between inter and intrastate.

Q. So that, if, as a matter of fact, the entire earnings from mail and passenger trains, should be credited to the state of Minnesota, the amount which you give here as the total amount would be smaller than the true amount?

A. Yes, sir, it would have to be increased by that amount, if that contention is allowed.

Statement produced and marked "Defts.' Ex. 3-M—Hillman."

Q. Defts. Ex. 3-M—Hillman shown witness. State whether or not Ex. 3-M contains the tables referred to in Ex. 3-L.

A. Yes, sir, it does.

Q. The Ex. 3-M consists of sixteen separate sheets or tables, numbered from 1 to 16, respectively?

A. Yes, sir.

Q. And those tables show, in detail, the data used by you and the computations made by you and the methods adopted by you in arriving at the conclusions stated in Ex. 3-L?

A. Yes, sir. Of course, there is more detail than could be shown upon the blue-prints, but the methods adopted and the general plan is shown by the tables themselves filed under this exhibit. I desired them filed as one exhibit for the reason that they are, as you suggest, consecutive and lead from one to the other, and I did not care to have them separated on the record.

Q. Please state what Table 1 is.

A. Table 1 shows the operating expenses for the year ending June 30, 1907, of the Northern Pacific Railway Company, and as set forth by their books.

Q. Is it a copy of anything?

A. It is a copy of the Northern Pacific's summary of opera-

ting expenses for the state of Minnesota for the above year.

Q. Then Table 1 is a copy of a record of the Northern Pacific Railway Company?

A. Yes, sir.

Q. An exact copy, is it?

A. Yes, sir. I would not like to say there might not be a clerical error in it.

Q. Well, it is assumed to be an exact copy?

A. Yes, sir.

Q. If not, it is because of an error?

A. Yes, sir.

Q. Now, I call your attention to the first double-column in Table 1 under the heading "Terminal Division, Main Line. Freight and Passenger." Will you state what the items appearing in those columns purport to be?

A. They purport to be the operating expenses of the Northern Pacific Railway Company incurred upon their terminal division in the state of Minnesota. I would say right here that this whole sheet No. 1 pertains to the state of Minnesota entirely. The headings of the different expense accounts are given in the first column on the left-hand side of the statement, and are the usual divisions followed by railroad companies in their analyses of expenses. The terminal division is a main-line proposition; it is divided, as you will note, into freight and passenger. Those are the figures which have been made by the Northern Pacific Railway Company and have been made by them on various bases. I assume no responsibility for that division between freight and passenger. It is to show the complete record as per their books that the division is given there and for certain use which will be developed in the further discussion of these tables.

Q. Now, each of the succeeding double-columns are of the same character and refer to the particular line which is named at the head of those columns?

A. Yes, sir. I would call your attention that on the other divisions outside of the terminal division, there is both a main-line expense and branch-line expense, each divided into freight and passenger.

Q. The expense upon each branch line is maintained and shown separately upon the records of the Northern Pacific as it is here?

A. Yes, sir.

Q. Now, next I want you to explain, when you come to a division which is not entirely in the state of Minnesota.

A. Where we come to a division which is not entirely in the state of Minnesota—

Q. Call attention to one of the divisions.

A. The Minnesota division, for instance: on Table No. 1, the expenses shown in Minnesota division are for the state of Minnesota, proportion of those expenses on main line and branch.

Q. Take, for instance, Minnesota division on Table No. 1, first double-column, under the heading "Main Line." Now, do those items refer to the portion of the main line of the Minnesota division which is wholly in the state of Minnesota?

A. Yes, sir.

Q. And are assigned to the state of Minnesota by the Northern Pacific Company?

A. Yes, sir. It so happens that all of the main line of the Minnesota division is in Minnesota; it is the branch lines of the Minnesota division that overlap.

Q. Very well, take the branch line. Double-column, branch line, under the Minnesota division, the items there refer to that portion of the branch lines on that division which are in Minnesota?

A. Yes, sir.

Q. And are the amounts for that portion of the branch line in Minnesota as kept by the Northern Pacific Company?

A. Yes, sir.

Q. This particular sheet is a copy, you said?

A. Yes, sir.

Q. But in your subsequent calculation you have made no attempt to change that particular division between the state of Minnesota and outside of Minnesota?

A. No, sir; I have accepted their figures, as I stated in the early part of this testimony, as being correct between the states.

Q. What is Table No. 2?

A. Table No. 2 shows the operating expenses, set up on the same basis shown by the Northern Pacific records for the divisions which overlap into other states from Minnesota. You will notice the Lake Superior division overlaps on both the main line and the branch line, while the Minnesota division overlaps only on the branch line.

Q. That is, if you desired to ascertain the total operating expenses upon all of the divisions of the Northern Pacific road which were either wholly in the state of Minnesota or some portion of which division touched the state of Minnesota, it would be necessary to take the totals of tables 1 and 2?

A. Yes, sir.

Q. Table 1 containing all of such expenses charged to the state of Minnesota and Table 2, all of such expenses outside of Minnesota pertaining to those particular divisions?

A. Yes, sir.

Q. Now, the total amounts shown upon Table 1 applicable to freight business appear in the first column of Table 4?

A. For the state of Minnesota, yes, sir.

Q. Well, now, Table 1 only relates to the state of Minnesota?

A. Yes, sir.

Q. So the total amount charged to freight upon Table 1 appears in the first column of Table 4?

A. Yes, sir.

Q. And the total amount charged to passenger business in Table 1 appears upon the second column of Table 4?

A. Yes, sir.

Q. I now call your attention to Table 3 of this exhibit, and ask you to explain what that is.

A. Table No. 3 of this exhibit is in two divisions, and is taken directly from the records of the Northern Pacific Company. The first division shows the engine mileage by operating divisions and branches, and the engine mileage is divided into train mileage and other than train mileage, meaning that where the engine made its mileage in train service it is entered under Train Mileage; where it made its mileage in other than train service it is under the heading of Other Than Train Mileage. The train service is divided, as you will note into Passenger, Freight, Engine, Caboose and Mixed. The other than train mileage has a number of divisions, as shown by the first portion of this exhibit. The second division of Table 3 shows the division of the train mileage and the car mileage, by divisions and branches. At the bottom of this Table No. 3 I have entered a memorandum to give a general idea of the operating divisions of the Northern Pacific Railway Company upon which this mileage is shown.

Q. Are the tabulations shown upon Table 3 your tabulations, or is this exhibit also a copy of the records of the Northern Pacific road?

A. It is taken from the records of the Company as is noted in the heading of this exhibit.

Q. Well, is it tabulated upon the records of the Company in this form, or is this form yours?

A. In this form on the records of the Company.

Q. In this form upon the records of the Company?

A. Yes, sir.

Q. So that, so far as those tabulations are concerned, this table is also a copy of the records of the Company?

A. Yes, sir. I may have inserted a line here of the totals which would not appear in the records of the Company, I don't remember about that; but if I have inserted that total it is simply the sum of their records to a certain point. I am not sure whether their records show exactly those total columns that I have there or not, but it is simply an arithmetical process of addition of their records, and that is the way they appear on their books.

Q. And the notes at the bottom of the table are your own?

A. Are my own, yes, sir.

Q. Have you had full access to the records of the Northern Pacific Company?

A. Yes, sir.

Q. And will you describe (I ought to have asked you before) something about your examination of those records, how you proceeded in the matter with regard to the examination of train-sheets and way-bills and matters of that sort.

A. In the matter of the examination of the way-bills of the Northern Pacific Railway Company, the object of that examination was to determine the amount of loss which had accrued to the Company by the operation of the rates put in force by the order of the Railway Commission and also to ascertain the potential loss of the putting in effect of the rates proposed by the legislative act, which putting in effect was enjoined, and those rates as prescribed by the legislative enactment have not been in force.

Q. Well, I want to know what you did.

A. We obtained from the Northern Pacific Railway Company the way-bills for the representative months of April and October, 1907. We took these way-bills, had them classified and rated, both at the old rate and the new rate. We had extensions made of each of the amounts of freight at both old rate and new rate and computed the losses on each way-bill. We tabulated these computations, compiled them and established

the amount of loss which had accrued and would accrue to the Railway Company by the operation of the rates.

Q. Well, as I understand it, Mr. Hillman, the loss as claimed by Mr. Johnson was only such a small amount in excess of the loss which you arrived at that you have accepted Mr. Johnson's statement in your final tabulation?

A. If you would just reverse that, my loss was very small, a fraction of a per cent in excess of Mr. Johnson's; that is, he had much more access to the figures than I had and I accepted his losses as the amount. The difference was exceedingly small between his final tabulation and mine.

Q. In your final conclusion there is no question raised as to the amount of loss claimed by Mr. Johnson?

A. No, sir.

Q. Now, what I want to ask you is what you did in that respect, what the work was. You had the way-bills for two months, you say?

A. Yes, sir.

Q. Where did you have them?

A. At the new Capitol building.

Q. The Northern Pacific Company gave you those entire way-bills and permitted them to be taken from their building and brought up and examined?

A. Yes, sir.

The MASTER: You said for April and October, 1907. That was right, was it?

WITNESS: Yes, sir.

The MASER: We had before spoken of the fiscal year ending June 30, 1907.

WITNESS: We did take October 1907, in lieu of October 1906.

Mr. O'BRIEN: The months used by Mr. Hillman were in the same calendar year which Mr. Johnson said, the other day, would make no difference.

Q. How many of those way-bills were there?

A. If I recollect, they were in the neighborhood of 500,000 all together.

Q. And was it in the course of the checking over and examination of those way-bills that the error was discovered which has been so often spoken of, in that the Northern Pacific had reported as state freight certain articles which were articles of interstate commerce?

A. No, sir; that matter developed in the examination of the agents' abstracts, which was done at the same time.

Q. You also had for examination the agents' abstracts, had you?

A. Yes, sir.

Q. For the same months?

A. For the same months, yes, sir.

Q. And how many of those were there?

A. I couldn't say; probably 10,000.

Q. What do you mean by an agent's abstract?

A. The agent reports to the accounting office at the end of a stated interval, monthly for the smaller stations, weekly for some of the larger stations, and semi-monthly for intermediate stations, the amount of freight in pounds and in dollars forwarded by him to each other station or received by him from each other station on the line of the road; and it is from those abstracts showing the weights that the tonnage statements were made and that this error was located.

Q. The calculations and conclusions shown upon the tables in Ex. 3-M contain that error do they not?

A. They contain a portion of that error. The matter is a little complicated, and if you desire I will explain it in full.

Q. Possibly, when you come to the exact table.

A. Yes, sir.

Q. And what you claim to be the correct conclusion is shown in Ex. 3-L?

A. Yes, sir.

Q. Will you explain why this error appears in your tables as found in Ex. 3-M?

A. The tonnages upon which the earnings accrued and the earnings on Northern Pacific way-billing are shown on agents' abstracts without any reference thereon which would indicate how much of the freight mentioned, tonnage or earnings, was an interstate matter; that is, there are certain shipments which come to the Northern Pacific road and are handled by them on intrastate way-bills, having an intrastate movement and under intrastate rates which are interstate shipments because they originated at a point outside of the state or are destined to some point outside of the state. Not being able to determine this from the agents' abstracts from which the tonnages and the earnings in Ex.3-M were made up, we were compelled to accept all tonnages moving on intrastate way-bills, intrastate conditions and intrastate rates, as an intrastate shipment, in order to establish the relation of earnings to operating percentages of intrastate business. Having established that percentage, we were then perfectly free to apply that percentage of the intrastate conditions to any amount of traffic it might be determined as an intrastate proposition, from accountants and comptrollers who had access to the billing, which we did not; and I was perfectly willing to accept their percentage of 12.33 of the total business as correct instead of that shown by me of 14.83.

Recess until 2 o'clock P. M.

AFTERNOON SESSION.

Q. Have you made any attempt to ascertain the cost of transporting any single item or class of freight; that is, any class of freight smaller than state freight or intrastate freight?

A. No, sir, I haven't made any division of the freight ac-

cording to commodities or products, only kept the division of intrastate and inter.

Q. Into what classes have you attempted to divide interstate freight and state freight?

A. Carloads and less than carloads, through trains and local trains.

Q. What do you mean by through trains or through freight?

A. A through train is one that runs over an operating division, making no stops or possibly one or two stops. It is freight which when put on that train is supposed to go through to the end of the operating division practically without break; it does no peddling business on the road; it has no car which contains local freight for the division over which it passes. The local train is one that passes over either the whole of this operating division or a portion of it, and makes all the stops necessary for the business and carries with it the local peddling car in which are contained the packages or the less than carload freight for that division.

Q. Imagine a shipment of freight from St. Paul to a point west of Staples and east of Dilworth on the Northern Pacific road; how has such a shipment been classed if carried on a through train to Staples and upon a local train beyond Staples to the point of destination?

A. A shipment from St. Paul to such a point—which would be local on the Minnesota division which stretches from Staples to Dilworth—would be classed as a through-freight from St. Paul to Staples, 140 miles, and from Staples to its destination as a local freight shipment.

Q. And that distinction is made both in interstate and intrastate freight?

A. Yes, sir.

Q. I now call your attention to Table 4 in Ex. 3-M. This table is divided into double-columns, as I understand it?

A. Yes, sir.

Q. The first of each set of double-columns contains the operating expenses of the Northern Pacific road for freight, the second column the operating expenses of that road for passenger service, each for the year ending June 30, 1907?

A. Yes, sir.

Q. State where you obtained the first double-column.

A. From the Northern Pacific Railway Company's records.

Q. That double-column is a transcript of the Northern Pacific books?

A. Yes, sir.

Q. And the division of operating expenses between freight and passenger is made upon the same theory as is the division found in Ex. 79—Elliott, for the year 1908?

A. As far as I know, it is. I do not know that they have changed any of the factors. I should judge it was on the same basis.

Q. Be that as it may, this double-column No. 1 is a transcript from the books of the Northern Pacific?

A. Yes, sir.

Q. Double-column No. 2 is what?

A. Is the division between freight and passenger on the basis originally set forth by Mr. Peabody, the statistician of the Atchison, Topeka & Santa Fe Railway Company, wherein the items which could not be allocated and certain other items which did not depend upon other factors directly and closely related to them, were divided on the basis of revenue train mileage. As this is very nearly allied to the method of the Northern Pacific, shown in column No. 1, I placed this division there for comparative purposes. You will note that the results are quite similar, the principal source of divergence being that the Northern Pacific have used the revenue train mileage factor by divisions while Mr. Peabody's method uses

it for the entire system or portion of the system under consideration.

Q. And that has been given for purposes of comparison?

A. For purposes of comparison with No. 1, and afterwards for purposes of comparison with No. 6.

Q. Double-column No. 3 represents what?

A. Represents the division between freight and passenger based upon the decision of the Wisconsin Railroad Commission in the case of Buell vs. The Chicago, Milwaukee & St. Paul Railway Company, and is headed by Prof. Myers, who is a member of that Commission and practically whose method it was.

Q. And that column is also given for the purpose of comparison?

A. Of comparison with the three following columns, not with the first and second, save as a comment might be made. As you will note, at the foot of columns 1 and 2, I have marked both of those methods as obsolete. I consider Prof. Myers' as belonging to the modern method of accounting.

Q. Column No. 4, headed "Hillman-1," is what?

A. Is a division between freight and passenger made by me on a basis of allocation and division by certain factors and varies from "Hillman No. 2" in column 5 in the fact that for certain expenses portions of them were divided in No. 4 on the basis of the gross earnings, freight and passenger, while in column No. 5 they were divided on the basis of net earnings, freight and passenger.

Q. Now, explain double-column 5, marked "Hillman-2."

A. This is a division made by me between freight and passenger on the basis of the analysis of each account of operating expense, and in order to state that basis fully it would be necessary to take each item. A general view of it would be that the division between freight and passenger on each item of expense is based, wherever it cannot be allocated and is

not allocated by the Railway Company, on well-known factors taken from their records which bear directly upon the expense in question.

Q. Well, I realize that we will have to go back to each item in the future, but your general explanation is probably sufficient now. Now, explain double-column No. 6 headed "Peabody Including Switching."

A. Column No. 6, Peabody Including Switching, is following the method which is now in vogue upon the Atchison, Topeka & Santa Fe Railway books, introduced by Mr. James Peabody, the statistician of that road. The difference between column No. 6 and column No. 2 is that, wherever it is necessary for Mr. Peabody in his analysis of column No. 6 to use the train mileage basis, he has abandoned the revenue train mileage basis which he had in column No. 2, and substituted therefor the train mileage basis, switching included. I would say that in all these cases wherever it is possible the expense has been allocated between freight and passenger; that the Northern Pacific have kept its books in such manner that between 60 and 70 per cent of these expenses have been so directly allocated to freight or passenger. It has been done carefully and has been of great assistance, as far as we could make the division, and I have accepted their allocations wherever they have put them on their books.

Q. Now, will you please explain double-column 7, headed "Average last four columns."

A. I have taken what I term the modern methods, Prof. Myers', Hillman-1, Hillman-2 and Peabody Including Switching, and have averaged these items and entered the average adding them all together for each item and dividing by four, and placed them in column No. 7.

Q. The difference which is made in the total operating expenses for freight and passenger from following the different methods contained in Table 4 is shown by the totals under

each of the separate columns constituting a double-column?

A. Yes, sir. Possibly that might be best illustrated by reading the passenger items of each of the four last divisions. Passenger expenses as per column 3, Prof. Myers' item, amounts to $1,785,925.66; the passenger expenses as per Hillman-1 are $1,754,327.46; Hillman No. 2, $1,779,570.88; Peabody No. 6, $1,825,009.57; the average of these four methods being $1,786,208.41. The method adopted in the subsequent analyses and tables in this exhibit is column No. 5, showing $1,779,570.88; which varies from the average less than $7,000 or a fraction of less than one-tenth of one per cent.

Q. While the amount charged as operating expenses to the business of transporting passengers, according to the books of the Northern Pacific, was $2,172,857.44?

A. Yes sir; a variation of almost 15 per cent of the total expenses in the state.

Q. Or, in round numbers, about $400,000?

A. Yes, sir.

Q. The operating expenses for conducting freight business are increased in column 5, Hillman-2, over the operating expenses for freight found in column 1, Northern Pacific, by the same amount?

A. Yes sir; that is, on each of these exhibits, if you add the freight and passenger together it gives you the total operating expenses for the state of Minnesota; there is no variation in that; that is a fixed quantity.

Q. As contained in the books of the company?

A. As contained in the books of the Northern Pacific Company.

Q. Is the total of each item the same?

A. Yes, sir.

Q. So that the total of each item found in the double-column in this table are the same?

A. For the whole seven double-columns, yes, sir.

Q. State whether or not the different methods of dividing these expenses shown in Table 4 have all been applied to the same items.

A. Yes, sir.

Q. That is, each double-column following double-column 1, and each item in those succeeding columns, is based upon the total amount appearing for that item in column 1?

A. Yes, sir.

Q. For instance, we will take the first item in column 1, station agents, clerks and laborers; the total of that item as shown upon the books of the Company, for both freight and passenger, is how much?

A. $500,861.52.

Q. The total for freight and passenger for that item is the same in 2, 3, 4, 5, 6 and 7?

A. Yes, sir.

Q. And that is true as to each of the items?

A. As to each of the items on the statement.

Q. Can you state what proportion of the total operating expenses, as shown in column 1 of Table 4, have been directly allocated as between freight and passenger by the Northern Pacific upon its books?

A. In the neighborhood of 62 per cent.

Q. State whether or not in making your division between freight and passenger you have accepted the amounts of each item which have been directly allocated by the Company.

A. I have accepted their allocation to freight or passenger.

Q. So that the dispute arises as to the proper method of subdividing the remaining 38 per cent of the total operating expenses?

A. Yes, sir.

Mr. O'BRIEN: With the permission of the Master, I will defer examination as to each item of table 4 until after some general description of the entire exhibit has been made.

Q. I now call your attention to Table 5. Will you please state what that table shows?

A. Table No. 5 shows the freight movements, tons and ton-miles, through trains, local trains and all trains, carloads and less than carloads and total, which are compiled from the agents' abstracts for April and October 1907, and also, besides the agents' abstracts, from the Company's records of other freight movements which do not show on the agents' abstracts.

Q. You described, this morning, what agents' abstracts are, I believe?

A. In a general way, yes, sir.

Q. And you had the agents' abstracts of the Northern Pacific road for the months of April and October, 1907?

A. Yes, sir.

Q. Why did you use the abstracts for the months of April and October of the same calendar year rather than the same fiscal year?

A. Because in the month of October, 1906, the rates ordered by the Railroad Commission were not in effect, and as I wished to determine the losses for representative months, it would have compelled my clerks to treat April by one method and October by another method, and these months have been conceded to be typical months of the traffic of the road. That one month (of October) would not vary in its relative relation of the sizes or percentages of the different freight carried from the same month in another year; I took the months of April and October, 1907, way-bills; having taken the way-bills, it became practically necessary to examine the agents' abstracts for October, 1907, rather than October, 1906.

Q. Have you made any examination of the way-bills or station agents' abstracts for the month of October, 1906?

A. I have not.

Q. In your judgment, for the purposes of these tables,

which are used to establish percentages only, are the results to be obtained from the use of the same months in the same calendar year as reliable as though you had taken months in the same fiscal year?

A. I should say practically so.

Q. The first division of Table No. 5 shows the number of tons carried upon all trains during the months mentioned in the heading?

A. Yes, sir.

Q. In the state of Minnesota?

A. Yes, sir, in the state of Minnesota, of course.

Q. The first column showing the number of tons in carloads which were interstate freight, the second item the number of tons in less than carload lots which were interstate freight, and the second column, giving the same information with reference to intrastate freight?

A. Yes, sir; this is in regard to tons, not ton-miles, that first column you will note, please.

Q. We next have the ton-miles of freight upon through trains divided between state and interstate?

A. Yes; and that shows the amount of ton-miles of freight in carloads which was entitled to be hauled upon a through train, interstate and intrastate. It shows the amount in the same way between inter and intrastate in less than carloads. This was taken from the agents' abstracts of freight routed and the mileage calculated on each shipment as shown by the monthly abstracts. These sheets were compiled with the result which is given on this table for through trains. As was said a few moments ago, where a shipment passed over one division completely, it was called a through movement; the same car or shipment passing over only part of the next division was given its weight and mileage as a local movement; if it passed over two divisions it was given its two through movements: this in each case. I have specimen sheets of this

which I could file if it is desired, but I hardly think it is necessary after explaining the method to go into that detail. I didn't want to cumber the record with it.

Q. We next have the same information as to freight.

Mr. BUTLER: You would be willing to submit them, gentlemen, for our examination?

Mr. O'BRIEN: Certainly.

Mr. BUTLER: If you will do that, it may facilitate our work of preparation for cross-examination.

Mr. O'BRIEN: Bring them out.

Q. We next have upon Table 5 the ton-miles entitled to be carried on local trains, divided between carload and less than carload, also between inter and intrastate freight?

A. Yes, sir.

Q. And finally the total ton-miles, divided in the same way?

A. Yes, sir; that is the total on all trains, both through and local.

Q. What did you mean when you said that this table showed the freight entitled to be carried in the manner you have described?

A. I meant that when a shipment started from any point in the state of Minnesota to another point, either in the state of Minnesota or out of it, wherever that route lay over a division, it was entitled to a through movement on that division; where it lay over only the part of a division, it was entitled only to a local movement on that division. The freight may or may not have been handled in this way, but it was entitled to a handling in that way, and if handled in any other way was not, therefore, in my opinion as shown in the subsequent analyses here, entitled to bear any more than its just proportion of the cost according to the way it was entitled to move.

Q. Have you seen or do you know of any record of the Northern Pacific Railway Company which shows whether

freight actually did move as you have described it as being entitled to move or not?

A. I have no such record kept for the purpose of determining that point on the Northern Pacific road nor was I able to find any kept for the purpose of determining that point. I did, however, find a record which did give me the figures for a basis of the actual movements on through and local trains.

Q. What record was that?

A. That was the record of the freight train movements on the main lines shown by the train sheets kept in the superintendent of transportation's office for the typical months under investigation, April and October, 1907.

Q. Did that record coincide with your conclusions as found in Table 5?

A. No, sir, because Table No. 5 would show the things as they ought to be, while Table No. 6—the first item, where this matter that I have just spoken of is recorded—shows the things as they are and as they were handled.

Q. Well, is there a material difference between the statements contained in Table No. 5 showing what service freight was entitled to and the record which you speak of which show the actual movements of freight?

A. Yes, sir, there was a difference of several points in percentage. Nothing particularly serious, but enough to determine me that I could not use Table No. 5 as the criterion of the actual movement of freight. Now, you will understand that the expense as set up must be on what was actually done when you determine the cost, as we do, of the through and local movement, while having determined the cost of the through and local movement, the discriminations which might occur either against inter or intra by reason of the actual methods of handling, are eliminated by the use of Table No. 5.

Q. State whether or not your final conclusions as to the cost of state and interstate freight are based upon the actual

transactions as shown by the record which you have mentioned, or upon the transactions as illustrated in Table No. 5?

A. They are shown by the actual transactions.

Q. What is the result of using the actual transactions in so far as the relative cost of state and interstate business is concerned?

A. It costs 23.27 per cent more—

Q. No, no, I don't mean that. What I asked you was what effect did it have upon the relative cost of doing state and interstate business to use what you have described as the actual transactions shown in Table No. 6 rather than the theoretical basis shown in Table No. 5, or have you worked that out?

A. I didn't work it out. It would probably increase slightly the cost of doing the local business.

Q. To do what?

A. To use the theoretical instead of the actual. I have not figured it and could not tell without making computations which would be considerably lengthy.

Q. Table No. 5 contains the actual tonnage and actual ton-miles for the months of April and October, 1907, I believe?

A. Yes, sir.

Q. To the extent of the total tonnage upon all the trains it is a record of the actual fact?

A. You mean as to the gross amount of ton-miles carried on the road?

Q. Yes.

A. Yes, sir; practically agreeing with the tonnages shown by the Northern Pacific Railway Company for that period. There cannot be an exact coincidence between the figures taken in this way from agents' records for a calendar month and the ton-miles shown by the Railroad Company, for the reason that the Railroad Company have a card-system of mileage which they take off from the shipments as they pass, and

therefore part of the shipments for September would carry over into October, part of the October shipments would carry over into November; and on the adjustment of their interline business there is a chance for a slight further discrepancy between absolute ton-miles, as at the end of the month's business the companies then refile their way-bills into the months in which they are made, and therefore all track of their system of checking up on the cards is lost, save that—well, it is impossible to recover it again, and therefore there would be a slight discrepancy in the total ton miles as expressed by them and as expressed by the methods which I use. But the relations of the amount of inter and intra by the two methods would be identical or with such a small fraction of percentage as might be negligible.

Q. Now, having ascertained the gross tonnage, you subdivided it between through and local trains upon Table 5 upon the method that you have described; that is, assigning to through trains freight passing over an entire division and to local trains freight passing over less than a division?

A. Yes, sir.

Q. And where the freight passed over an entire division and partly over another division, it was assigned as through freight to the division which it passed over entirely and as local freight to the division which it passed over only partly?

A. That is right.

Q. And you describe that as the carriage to which the freight was "entitled?"

A. Yes, sir.

Q. And would that conform to the ordinary practice of railroad companies, as you understand it?

A. In a general way, yes, sir, it would. I understood your question, Mr. O'Brien, to be that would they as a general thing move their freight on the basis of Table 5; was that your question?

Q. Yes.

A. That was what my answer was; as a general proposition, they would move their freight on that basis.

Q. Upon Table 5 you further separated the through freight between interstate and intrastate freight?

A. Yes, sir.

Q. And again, each of those between carloads and less than carloads?

A. Yes, sir.

Q. And made the same separation with reference to freight upon local trains?

A. Yes, sir.

Q. As a matter of fact, you say you ascertained from examination of other records of the Company that the freight did not actually move as shown upon Table 5, but did move as shown upon the first subdivision of Table 6?

A. Yes, sir.

Q. You have said that if the freight had moved as shown upon Table 5 rather than in the manner in which it actually did move, it would have increased the cost of local freight; what do you mean by "local freight?"

A. I mean by local freight the amount of freight handled upon local trains. I should possibly qualify that by stating that it would have increased the relative cost between through and local train movements.

Q. Why is that so?

A. Because local train movements cost more than through train movements; and, having determined the cost of a local train, the more tonnage that moves on a local train the less the cost left to divide on the tonnage moving on a through train—which is the method that we used to determine the cost of freight on the through train; so with an increased amount of local movement would come a decreased cost of through movement.

Q. I now call your attention to Table 6 entitled, "Statement Showing Process of Determining, in Division C, Relative Cost of Local and Through Trains; in Division D, Relative Cost of Inter and Intra on Trains." That is inter and intra freight I presume?

A. Yes, sir.

Q. Division A is not referred to in the caption. Please explain what Division A is, of Table 6.

A. Division A is the summary of freight train movements on the main line, where there is both through and local service as shown by the train-sheets, for the months of April and October, 1907. These train-sheets are on file in the office of Mr. Richards superintendent of transportation of the Northern Pacific Railway Company. On these train-sheets each train is shown by its number, and also has the total weight of the train at its initial point shown. This for each of the divisions as shown in the vertical column at the left of the sheet.

Mr. BUTLER: The first three columns of figures refer to through trains?

WITNESS: Yes, sir.

Q. The next three to local trains?

A. Yes, sir.

Q. In the first column of the first division, is shown the net ton-miles on each of those divisions?

A. Yes, sir.

Q. In the second what you describe as "dead ton-miles," that is the weight of the train exclusive of freight?

A. The weight of the cars.

Q. In the third column the "total ton-miles?"

A. Yes, sir.

Q. And the same information with reference to the local trains?

A. To the local trains, yes, sir.

Q. In the accounts kept by the Northern Pacific road in

accordance with the direction of the Interstate Commerce Commission as to classification of accounts, are the items relating exclusively to train movement separated?

A. Yes, sir.

Q. What items constitute the items of the expense of train movement in the classification of accounts?

A. Items from 10 to 28.

Mr. BUTLER: What table is that on?

WITNESS: On the operating table. I would say here that the numbers on Table No. 1 were so close to the margin that they did not print, but they are shown very clearly on Table No. 2, which is exactly the same, spacing to the left.

Q. Well, they appear again on Table No. 4?

A. Yes sir.

Q. It is the classification that is found in Tables 1, 2 and 4. And as I understand it, that was the classification of the Interstate Commerce Commission?

A. Yes, sir.

Q. Now, in that classification, items 10 to 28 inclusive, or 10 to 27, inclusive—which is it?

A. 10 to 28, inclusive.

Q. —10 to 28, inclusive, refer exclusively to train movement?

A. To train movement, yes, sir.

Q. And are those the only items that refer to train movement?

A. Practically all of it you would classify as a train-movement expense.

Q. State whether or not items 10 to 28, inclusive, are entirely allocated between freight and passenger upon the books of the Company and in these tables.

A. Yes, sir, they are allocated by the Railroad Company between freight and passenger.

Q. So that, if we would turn to Table 4, we will find that

the division of those items is the same in each of the double-columns?

A. Yes, sir.

Q. In other words, there is no dispute as to the division of those items between freight and passenger?

A. None.

Q. Now, in speaking of the items with reference to train movements, you spoke about items 10 to 28.

A. Yes, sir.

Q. Do all of those items contain freight items?

A. No, sir, the last item there, if you will note, is the damage to baggage, which is exclusively a passenger item. I have noted that in Table No. 6, of course; we speak of operating accounts 10 to 27. When we come to the discussion of passenger, we will, of course, include 28, but it being distinctively a passenger item, I did not include it when I spoke of the freight analysis.

Q. The general statement, then, that you made refers to item 28, also, but for the purpose of ascertaining the cost of freight it is only necessary to consider items 10 to 27, inclusive?

A. Yes, sir, that would show, of course, because account No. 28 would have no entry whatever in the freight column; it would all be passenger.

Q. Are there any other of the items from 10 to 28, inclusive, which refer exclusively to passenger business?

A. Yes, sir, there are.

Q. Well, please give the numbers of those items.

A. 12, 14, 15, 17, 18, 20, and then 28.

Q. Is there any portion of the Northern Pacific road within the divisions named in Table 1 upon which all of the freight which is carried is carried under the same conditions? For instance, how about the transportation of freight upon the branch lines?

A. The transportation of the freight on the branch lines of the Northern Pacific Railway in the state of Minnesota, and in those portions which overlap into Dakota, is carried on the local-train basis entirely.

Q. No one of those branches constitutes an entire division?

A. No, sir.

Q. So that, under the definition which you have adopted for through freight, there can be no such thing as through freight upon any one of the branches?

A. They do not run a through train on any of those branches, save that it might be an incidental service; but they have no through train schedule on those branches, therefore they have no through train service on those branches, although the train might happen to pass entirely over the branch from end to end.

Q. Have you been able to ascertain from the books of the Company the total operating expenses upon the branches connected with the divisions of that road which either touch Minnesota or are included within the state of Minnesota?

A. Yes, sir.

Q. And have you also been able to ascertain the total tonnage carried upon such branches?

A. Yes, sir.

Q. The total expenses upon those branches can be ascertained from Tables 1 and 2, I believe?

A. Yes, sir.

Q. Where did you obtain the total tonnage?

A. From a statement of the Northern Pacific Railway Company, headed "A. S. & M. A. No. 5," prepared, I think, in Mr. Park's office and filed finally in the office of the Comptroller. The preparation of these sheets ended with the month of October, 1907, so I am informed. The results taken from these sheets and read to me from the summary for the year ended June 30, 1906, and 1907, by Mr. Johnson, the Assistant

Comptroller, are shown upon Division B, Table No. 6, first line.

Q. Now, let me call your attention to Division B of Table 6. "Ton-miles, year 1906-1907, Total 1,596,186,389"; where is that information derived from?

A. From the yearly summary of the sheet which I mentioned which is headed "A. S. & M. A. No. 5." I had a copy of that for the months of April and October and went to the Northern Pacific and they read to me from their summary of those sheets the figures which are shown in Division B. I did not deem it necessary to make a copy of that statement. At the same time Mr. Johnson and I discussed the matter as to whether that table showed the proper relation of tonnages on main line and branches. Since the total tonnage which is summed on that statement is about 20 per cent greater than the tonnage which the Northern Pacific Railway Company have reported to the State as the total for the state business, this was an important point, and I was assured by Mr. Johnson that he considered that although the table did not show the exact tonnage, being prepared in somewhat a different way, that yet it did show the relation of the tonnages on the branch and through lines, and I accepted that statement.

Q. The division of the total mentioned in my last question between tonnage upon the main line and tonnage upon the branches, was obtained in the manner which you have described?

A. Yes, sir.

Q. The next item contains the total of the items attributable to freight found between items 10 to 27 of Tables 1 and 2, as you have already described?

A. Yes, sir.

Q. Those being items referring to train movements only?

A. Train movements only, yes.

Q. And the total of those items is $2,219,735.61?

A. Yes, sir.

Q. Now, that total is divided between main line and branches, as shown upon Division B of Table 6, to the main line, $1,955,189.99; branches, $264,545.62; upon the books of the Company as you have already described?

A. Yes, sir.

Q. And those amounts are found in Tables 1 and 2 of this exhibit?

A. Yes, Tables 1 and 2 of this exhibit.

Q. Dividing tons into cost gives relative cost, direct train movement for all freight, of—

A. Of all freight .13006 cents; for main-line movement, .13277 cents; branch-line movements, of .21420 cents.

Q. In your subsequent computations you have assumed that the cost of direct train movements of transporting freight upon the local trains is the same as this cost that you have found for all freight upon the branches?

A. Yes, sir.

Q. .21420?

A. Yes, sir.

Q. That, of course, is not the total cost of moving local freight, but is the total cost for the direct movement of trains entering into that total cost?

A. It is the train movement and includes no other expenses save train movement.

Q. In other words, in addition to this amount of .21420 cents for the movement of freight upon local trains there is still to be added that character of freight's proper proportion of the other items contained in the classification of interstate commerce?

A. Of the interstate commerce expenses, yes, sir.

Q. Now, I direct your attention to Division C of Table 6. The first item—

A. Shows the total main line ton-miles as in the second

column of Division B of this table, 1, 472,681,186.

Q. That is the total ton-miles of freight moved upon the main line of the Northern Pacific Railway Company in the state of Minnesota?

A. Yes, sir.

Q. In the fourth column of Division A of Table 6 you ascertained that, upon the main line, 14.59 per cent of the entire tonnage was moved or carried upon local trains?

A. Yes, sir.

Q. You have, therefore, ascertained how much 14.59 per cent is of the total tonnage, and that appears as the second item upon Division C, 214,864,186?

A. Yes, sir.

Q. Deducting that amount from the total tonnage, you find that upon the main line the total through tons moved one mile were 1,257,817,000?

A. That is right.

Q. As shown in the second line in Division B of Table 6 the total expense of moving that freight upon the main line was $1,955,189.99?

A. Yes.

Q. And in the third item of Division C you have computed the cost of moving the local freight on the main line (or 214,864,186 ton-miles) by the cost of moving freight upon the branches, (and I am speaking now only of that portion of the cost found in items 10 to 27, which apply to the freight) or .21420 cents, and you find that the portion of that cost made up from those items and chargeable to local freight upon the main line was $460,239.08?

A. Yes.

Q. That the 1,257,817,000 tons of through freight were in like manner transported at a cost of $1,494,950.91?

A. Yes.

THE MASTER: Ton-miles?

Mr. O'BRIEN: Yes, ton-miles.

Q. The last statement contained in Division C of Table 6 is the relation which the cost of moving local freight bears to the cost of moving through freight upon the Northern Pacific road, reference, however, being had only to those items chargeable to freight included between items 10 to 28, inclusive, and which you have described as giving the cost of direct train movement?

A. Yes, sir.

Q. Now, will you tell what that is?

A. It shows that the cost of local train work is 80 per cent more than through train work on the Northern Pacific Railway Company as shown by their accounts, in the state of Minnesota, and that this cost is upon the ton-miles. That is, a ton hauled upon a local train costs 80 per cent more for train movement items than it does to haul the same ton on a through train.

Q. Up to this point you have been dividing the freight between through and local freight, without reference to its character as state or interstate freight?

A. Yes, sir.

Adjourned until Thursday, May 20th, at 10 A. M.

FEDERAL BUILDING, St. Paul, Minn., Thursday, May 20, 1909, the hearing was resumed at 10 o'clock A. M.

CONWAY W. HILLMAN,
recalled on behalf of Defendants, testified:

By Mr. O'BRIEN:

Q. I now call your attention to Division D of Table 6, which appears to be headed "Determining inter and intra relative costs." Are we to understand that the computation shown upon Division D of Table 6 is for the purpose of estab-

lishing the relative cost, or for the purpose of establishing the actual cost per ton-mile?

A. The relative cost per ton-mile.

Q. That is, the object is to ascertain a percentage upon which the actual items of train movement should be divided between state and interstate freight?

A. Yes, sir.

Q. And it is not intended to establish any actual cost per ton-mile in itself?

A. No, sir; it is to furnish the percentage from which that can be figured.

Q. For instance, turning to Table 7, where the actual items are divided between interstate and intrastate freight, any of the items which we have designated as an item of direct train movement, or, in other words, any item between 10 and 28, inclusive, would be divided upon the percentage established in Division D?

A. Yes, sir; the number of ton-miles inter would be considered as a unit and left at its face value; the number of ton-miles intra would be multiplied by 1.2327, and then the expense divided upon this result, for the reason that the ton mileage inter is the unit, and the ton mileage intra costing 23.27 per cent more to do, for train work, than the inter, it is necessary, in order to find the proper percentage for the division of the actual dollars, to raise the intra ton-miles 23 per cent and then make the division.

Q. In the computation shown in Division D of Table 6, you have first taken the number of tons of intrastate freight as established upon Table 5, which was entitled to move upon a through train, being 17,037,901 ton-miles?

A. Yes, sir, and have multiplied that by one (1) because it moved on a through train, which we consider the unit for this purpose.

Q. Giving a cost, therefore, of 17,037,901?

A. It can hardly be called a cost; you would have to call it a figure.

Q. Relative cost, I am speaking of.

A. Yes, sir, "relative cost."

Q. And 20,749,273 tons of intrastate freight entitled to move upon a local train at an expense of 1.80 per cent?

A. Yes, sir.

Q. Amounting to 37,348,691.40?

A. Yes, sir.

Q. The total tons, 37,787,174, being divided into the total cost of 54,386,592.40, gives an average cost of 1.4393?

A. Yes sir, as the cost of moving intrastate traffic on trains, total business.

Q. That is, these are all relative?

A. Relative, yes, sir.

Q. The same method is then applied to the interstate ton-miles?

A. Yes, sir.

Q. And the relative cost there is 1.1676?

A. Yes, sir.

Q. You next ascertained the percentage relation which these relative costs bear to each other?

A. Yes, sir, by dividing 1.1676 into 1.4393, giving me 1.2327 or intra train work cost 23.27 per cent more than inter.

Q. Now, all of this refers to the items which have reference exclusively to train movement?

A. Yes, sir.

Q. And if your computation is correct, it shows that of the total amount of those items, if the tonnage carried which was interstate and the tonnage carried which was intrastate were equal, the total proportion of those items to be charged to intrastate business would be 123 per cent of the proportion of those items to be charged to interstate business?

A. Well, I wouldn't say 123 per cent, but wherever the

interstate freight is charged $1 the intrastate freight would be charged $1.23.

Q. Well, now, I understand that to be the same thing that I asked.

A. I wanted to be sure I didn't get mixed on percentages there.

Q. Assuming that the state and interstate tonnage is the same, and assuming the correctness of your computation in Division D of Table 6, would not the result be that if the proportion of the train-movement items we have been speaking of, chargeable to interstate freight, was $100, the amount to be charged to intrastate business would be $123.27?

A. Yes, sir.

Q. I will now ask you to explain Table 7, not in full detail, but the object of it and what it purports to show.

A. Table No. 7 shows in detail the division of the freight operating expenses which have been taken from column 5 of Table 4, shows their division into interstate expense and intrastate expense; this by each operating account in detail, and summarized at the bottom, of course.

Q. The first column under head of "Accounts" is a statement of the accounts classified in the same way as in Tables 1, 2 and 3?

A. 1, 2 and 4?

Q. Column "A-Freight" is the total amount assigned to freight as shown in column 5 of Table 4?

A. Yes, sir.

Q. That is, what you claim to be the correct division?

A. Yes, sir.

The MASTER: Is that "Hillman-2?"

Mr. O'BRIEN: Yes, sir.

Q. And the next column gives what you claim to be the proper division of each item?

A. Yes, sir.

Q. The items 10 to 28, inclusive, (or inasmuch as 28 is a passenger item not appearing in this list, 10 to 27, inclusive) —make an explanation about that.

A. Wherever an item in the inclusive numbers mentioned is exclusively a freight item, of course it would be contained here and omitted from the passenger account. If it was exclusively a passenger item, of course it would be omitted on this table and show on the subsequent division showing between interstate and intrastate on the passenger business.

Mr. O'BRIEN: For the purpose of convenience, I desire to continue to use the term from 10 to 28, inclusive, with the understanding that in all cases the item which does not apply to either one is not included.

Q. Items 10 to 27, inclusive, appearing upon Table 7, have been divided in the manner that you explained when describing Division D of Table 6?

A. Yes, sir.

Q. Each of the other items has been divided upon a method which you consider adapted to that particular item?

A. Yes, sir.

Q. And as a final result you claim that for this year the operating expenses chargeable to interstate freight were $4,715,969.17?

A. Yes, sir.

Q. And to intrastate freight $1,182,490.89?

A. Yes, sir. I would call your attention here to item No. 6 on this account, Switching, $40,338.19, which on the Northern Pacific Railway Company's books is an expense item; under instructions from the Railroad Commission this amount $40,338.19, the expense of switching was deducted from the gross switching receipts and on the Railway Company's reports to the State; therefore, the net switching receipts have been taken up as the earning; I have, therefore, ignored this switching as an expense account, and taken the earning on the

basis of the net as per the instructions to the Railroad Company by the State Commission. I want to explain the disappearance of that item and the fact that from the totals which are shown here in the former tables the freight from now on is minus $40,338.19 of expense, having been deducted from the gross earnings switching.

Q. Will you now explain Table No. 8?

A. Table No 8 shows the freight earnings intrastate for the year 1906-1907; freight earnings total for the state for the year 1906-07, and freight earnings total interstate for the year 1906-07. The Division C, which shows the total earnings interstate, is obtained by merely deducting the intrastate earnings from the total earnings in the state. In this table I have referred frequently to the annual report made by the Northern Pacific Railway Company to the State Railroad Commission.

Q. You refer to the annual report of the Northern Pacific Railway Company to the State of Minnesota for the year ending June 30, 1907?

A. Yes, sir.

Q. That report is on file in the office of the Railroad & Warehouse Commission and is a public record?

A. Yes, sir.

Q. What is meant, in Table 8, by "A, N. P. Railway, Straight Way-billing, so reported by the N. P. Railway Company?"

A It means that the earnings on Northern Pacific Railway Company's way-bills, issued from a Northern Pacific point to a Northern Pacific point, intrastate work, showed that earning.

Q. What is meant by "so reported?"

A. I mean that that figure is taken from data furnished me by the Northern Pacific Railway Company.

Q. The next item, "Interline Way-billing?"

A. That means the amount of interline way-billing, where

the bill was between different roads; that is, it was billed by the Northern Pacific on a joint interline way-bill to a point on some other line, or billed by some other line to a point on the Northern Pacific railway, all within the state of Minnesota; that is, the combined route of such way-billing did not take it out of the state.

Q. Returning to the first item, in which you said "straight way-billing so reported by the Northern Pacific Railway Company," you do not mean, then, that that particular information is contained in the official report to the Railroad & Warehouse Commission—

A. No, sir, I do not.

Q. —in that form; but was furnished you, you say, by the proper officers of the Company, upon request?

A. Yes, sir.

Q. And that request was made during the time that you were preparing these computations?

A. Yes, sir.

Q. And you were recognized as representing the Railroad & Warehouse Commission and in their employ?

A. Yes, sir.

Q. And, so far as you know, is there any dispute between yourself and the accounting officers of the Company, with reference to that item?

A. No, sir.

Q. In what way was it made known to the officers of the Company that you were in the employ of the State of Minnesota and represented the State in making these requests?

A. My recollection is that Mr. Yapp, the assistant secretary, accompanied me to the general offices of the Northern Pacific and introduced me to the officials there and made the statement. There have been several letters passed since from the Commission to the officers of the Northern Pacific, making special requests for information, which would probably indi-

cate the same thing, but I do not think there was any formal introduction by letter from the Commission.

Q. Will you go on and explain each of these computations appearing on Table 8?

A. I have given an explanation of the first and second items. The third item, on the Northern Pacific report to the State, $2,880,198.92, was reported as a total intrastate freight earning; from which there was a deduction made on account of overcharges to shippers or consignees, of $22,914.72. These figures are shown upon page 85 of the report to the State Commission. As I have only used $2,092,160.24 of this earning, I can only use the same percentage of the refund, and line No. 3 shows that percentage, which I have deducted from the $2,092,160.24 above shown.

Q. That leaves a net earning from intrastate business of $2,075,514.99?

A. A net gross earning.

Q. I mean a net gross earning.

A. A net gross earning.

Q. Does that amount, $2,075,514.99, include the error which we have so often referred to by which certain interstate freight was credited to the state business?

A. Yes, sir, it does. The inclusion of that error is rendered necessary by the fact that we were compelled to take the tonnage which included that error into our computations. It does not alter the percentage result at the end,—as we can explain when we get there.

Q. Now, go on with the next item.

A. The next item is the total switching, as shown on their report to the Railroad Commission, and we have taken 27.967 per cent of this as an intrastate earning, based upon the relation between the interstate and intrastate carloads, as shown on Table 5. The earnings, of course, in switching, accrue on carload lots.

Q. Is the amount shown in this item the net switching earnings as you have already described in referring to the elimination of that item from Table 7?

A. Yes, sir.

Q. Those expenses are eliminated, then, in the same way upon this table?

A. Yes, sir; the gross would be 265,000 and some hundred.

Q. The next item?

A. The next item is Storage and Demurrage, shown upon the same page of the same report to the State, and amounts to $21,560.12. We allow the intrastate the percentage of ton-miles as shown in Table 5, or 14.83 per cent. The sum of these items then amounts to $2,141,733.28.

Q. Are you sure that that percentage 14.83 is derived from the ton-miles? Isn't that the percentage which the intrastate business bears to the entire business when the error is not corrected that we have been speaking about?

A. Yes, sir; of course, that percentage is 14.83.

Q. That gives total intrastate earnings of $2,141,733.28?

A. Yes, sir.

Q. Go on, please.

A. Division B shows the gross freight earnings, switching earnings and bridge tolls, as taken from the Northern Pacific report, page 35, to the State. From this we deduct the intrastate earnings as above, leaving the total interstate earnings as the balance.

Q. There is no portion of the third item of Division B of Table 8, apparently, included in the intrastate earnings?

A. No, sir; the St. Louis bridge is an interstate proposition; the State hasn't got any foot in that.

Mr. BUTLER: Over the St. Louis river?

WITNESS: Yes.

Q. Between Duluth and Superior?

A. Yes, sir.

Mr. How: Between Minnesota and Wisconsin?

WITNESS: Yes, sir.

Q. I call your attention to Table No. 9 and ask you to explain that table.

A. By reference to Table No. 5, interstate ton-miles total amount to 217,068,886; Table No. 7 shows that the interstate expenses amounted to $4,715,969.17. If we divide the ton-miles interstate into the expenses interstate—I mean the freight expenses interstate—we would obtain a relative result of 2.17000 cents. The stenographer in making the points on this Table 9 showing this division, has put in commas where there should be a period, and inserted a period as if she were stating dollars, and I therefore read it as it should be, in cents and fractions of a cent. The intrastate ton-miles, as shown on Table 5 and in the second column of this table, are 37,787,174; the corresponding intrastate expense, taken from Table No. 7, shows $1,182,490.89. Dividing the ton-miles intrastate into the expenses intrastate gives us the result of 3.12292 cents. The total ton-miles shown upon Table No. 5 amount to 254,856,060. The total expenses, taken from Table 7, show $5,898,460.06. Dividing the ton-miles into the total freight expenses gives us 2.31443 cents. If we now treat the total expense of doing the freight business per ton-mile as a unit, we have the result that it costs 134.93 per cent to do intrastate business and 93.76 per cent to do inter business. It therefore costs 34.93 per cent more to conduct intrastate business than all business, and it costs 6.24 per cent less to do interstate business than all business. It also shows, by the division of the relative cost per ton per mile, that it costs 43.91 per cent more to conduct intrastate business than interstate business, all expense accounts included. This portion of Table 9 is in the nature of a conclusion and is of no use in Division B of the same table.

Q. Is this what you mean by your last statement, that, hav-

ing ascertained by the prior tables the total cost of doing intra and interstate business, you have, in Division A of Table 9, made a computation as to the relative cost of each of those businesses per ton mile, for the purpose of reference and comparison?

A. Yes, sir.

Q. And the computation shown in Division A of Table 9 is complete in itself?

A. Yes, sir.

Q. And made for the purpose of showing what the relative cost per ton-mile is between state and interstate freight, if your former computations definitely fixing the amount expended for each of those purposes are correct?

A. Yes, sir.

Q. Explain Division B of Table 9.

A. Division B shows first, the intrastate freight earnings taken from Table 8; the next line shows the intrastate freight expenses taken from Table 7; the third line shows the difference between the earnings and expenses or the intra freight net earnings; the fourth line shows the operating expense per cent intra freight; the fifth line shows the interstate freight earnings, taken from Table 8; the sixth line shows the inter freight expenses taken from Table 7; the seventh line shows the inter freight net earnings; the eighth line shows the inter freight operating per cent; the ninth line shows the total freight earnings for the state of Minnesota, taken from Table 8; the tenth line shows the total freight expenses for the state of Minnesota taken from Table 7; the eleventh line shows the total net freight earnings for the state of Minnesota; and the twelfth line shows the total freight operating expense for the state of Minnesota. The intra freight operating percentage is 55.21; the inter freight operating percentage is 54.47; the total operating freight expense is 54.61.

Q. In all of these tables, the erroneous amount of intra-

state business is given, is it not?

A. Yes, sir.

Q. And as this is the last of the exclusively freight tables, I think we had better explain what that is. Will you please explain the character of freight which is erroneously included in the intrastate freight originally by the Northern Pacific Company?

A. In the original data furnished me by the Northern Pacific Railway Company, of the intrastate freight, the measure by which it was determined whether it was inter or intrastate was the haul on the Northern Pacific lines within the state of Minnesota. If the haul was an intrastate matter, that is, if on the Northern Pacific lines it was handled between two points within the state of Minnesota, it was classed as an intrastate matter, regardless of the fact that it might be moving upon an interstate way-bill at an interstate rate or the proportion of an interstate rate. This was generally done by all railway companies. When I had taken off the amount shown by my agents' abstracts of the tonnage moving as an intrastate matter, I found a large discrepancy between these figures and those furnished by the Railroad Company. Upon investigation and consultation with them I then found out what the error was. The Northern Pacific Railway Company having discovered this error, either some time prior or at this time (I don't know when) corrected it. In correcting it they went one step further than eliminating from the freight record which they had furnished the amount of freight which moved on an interstate way-bill, and also deducted from this amount which they had recorded all freight moving on an intrastate way-bill upon which they could show that it had either originated, or was destined to, a point outside the state. This freight may have moved, and, as a rule did move, upon an intrastate way-bill, at intrastate rates, as prescribed by the Railroad Commission's order. Having no way, from the agents' abstracts from which

I took the tonnages necessary to make computations in this exhibit, to determine how much of that tonnage was handled by the Northern Pacific road as an inter matter, I was compelled to complete this exhibit on the basis which contained the error between 14.83 per cent of the total business in Minnesota, being intra as shown by me, and of 12.33 per cent of the total business in Minnesota shown as intra on Mr. Johnson's exhibit No. 54.

Q. You said that that matter was a subject of consultation; with whom were the consultations?

A. With Mr. Johnson.

Q. Were you present in court here when we all consulted upon the same matter, Mr. Gray and the counsel upon both sides?

A. Yes, sir, and it was, I believe, at my suggestion that you asked Mr. Gray the question.

Q. Many months ago?

A. Yes, sir.

Q. If I understand you, the error (in part, at least,) consisted of this: where freight was shipped, let us say, from a wholesale dealer in Chicago to a retail dealer located at an interior town in Minnesota, was carried from Chicago to the Minnesota Transfer over one of the Chicago lines and at that point transferred to the Northern Pacific Company and carried by it to the local merchant in the interior town in Minnesota, the shipment was carried and reported by the Northern Pacific as an intrastate shipment, so far as it was concerned, that is, so far as the Northern Pacific was concerned?

A. You mean, of course, originally so reported?

Q. Yes.

A. Yes, sir.

Q. Now, the greater portion of the discrepancy had reference to freight carried under those conditions, as I understand it?

A. Yes, sir; the greater portion accrued in freight carried under those conditions where it was carried on interline way-billing.

Q. I would like to take up one phase of it at a time, Mr. Hillman.

A. Yes.

Q. The entire error practically consisted of the classification of freight in the manner that I have described?

A. Yes, sir.

Q. Of freight of that character, did it not?

A. Yes, sir.

Q. Some of that freight which we concede was erroneously classed as intrastate freight was carried under what you designate as interline way-billing, that is, a through way-billing?

A. Yes, sir.

Q. And some of that freight so erroneously classified was re-way-billed by the Northern Pacific at the Minnesota Transfer?

A. Yes, sir.

Q. But all of the freight so erroneously classified originated out of the state and was destined to points within the state, or, *vice versa*,—

A. Yes, sir.

Q. —originated in the state and was destined to points outside of the state?

A. Yes, sir.

Q. Now, the final statement of the amount of freight properly classed as intrastate freight appearing in Mr. Johnson's exhibits and given by him as 12.23 per cent of all the freight transported in Minnesota, eliminates all of the freight so erroneously classified?

A. Yes, sir; I have accepted his statement that it does so.

Q. What difference was there in the actual method of handling the freight which we have been speaking about?

A. As to the physical handling of the freight none whatever.

Q. This freight which was erroneously classified as intrastate freight was practically hauled under the same conditions as the true intrastate freight was hauled?

Mr. BUTLER: That is objected to as leading.

A. Yes, sir.

Q. Which probably accounts for the fact that it was erroneously classified as intrastate freight, is that so?

A. Yes, sir, probably.

Q. And in your investigations, have you ascertained upon what rates this erroneously classified freight was carried?

A. The freight erroneously classified which goes to make up the difference between Mr. Johnson's 12.33 per cent and my 14.83 per cent was carried on intrastate rates, on intrastate way-billing and on intrastate conditions.

Q. Is it not true, therefore, that in arriving at your conclusions showing the relative cost of state and interstate business and the percentage of operating expenses to total revenue as to each class of business, the error is immaterial?

A. It is immaterial, for the reason that in estimating my expenses I included the tonnages and the expense of handling this difference and that I am therefore entitled to the earning on this amount of freight, 14.83; and having established the relation between the earnings and the operating percentages on this equitable basis of equal carriage which I have mentioned, the same percentage of operation would apply to intrastate whether the earnings be doubled or cut in half.

Q. The per cent which the expense of transacting intrastate freight business is of the total earnings upon intrastate freight business is then correctly shown in subdivision B of Table 9, to-wit, 55.21 per cent?

A. Yes, sir.

Q. You have then taken that percentage and applied it in

Exhibit 3-L to the actual intrastate earnings as claimed by Mr. Johnson in his exhibits presented in this case?

A. I have not used the 55.21 for the reason that, in the application of these figures to the statement 3-L, I have first taken into account the reductions which would accrue by the application of the legislative rates and used that percentage in Exhibit 3-L to show how the case would stand when all reductions due to the introduction of the prescribed rates would have been made; but the basis is exactly the same as on Table 8, save that I have reduced the earnings slightly for the purpose of showing that reduction; therefore I would say that this is the basis applied and this percentage holds on Exhibit 3-L.

Q. I call your attention to Exhibit 3-L and ask you to again explain that table in detail, as I don't thoroughly understand your last answer.

A. Table 9 of Exhibit 3-M shows the operating per cent of 55.21 for intrastate business, as the freight earnings of the Northern Pacific Railway stand at present. By reference to Table 16 of the same exhibit, you will note that I have reduced this earning by the amount of reduction which the introduction of the new rates and their enforcement would have made in the freight earnings. I have used the same operating expenses as upon Table 9, and have therefore an operating per cent, after deducting all losses, of 57.631 per cent, which percentage is used in making up Exhibit 3-L.

Q. Is this right: the operating expenses assigned by you to the carriage of intrastate freight are fixed?

A. They are fixed on the basis of 14.83 per cent.

Q. They are fixed at a definite amount?

A. Yes, sir.

Q. And that amount was 55.21 per cent of the earnings?

A. Yes, sir.

Q. If the earnings had been reduced by the operation of the

prescribed rates and the operating expenses had remained the same, the percentage of operating expenses would necessarily be increased?

A. Yes, sir.

Q. The result would be that the operating expenses, on that hypothesis, would be 57.631 per cent—

A. Yes, sir.

Q. —of the earnings which would have been received if the rates had been in effect?

A. Yes, sir.

Q. Subject to that modification, has this percentage of operating expenses established in Table 9 been carried into Table 3-L?

A. Yes, sir.

Q. I am trying to establish the fact, if it is a fact, or to at least establish your claim, that the error in the classification of freight does not make the same error in the percentage which the operating expenses were of the total earnings; is that right?

A. That is correct.

Q. But that percentage would be varied somewhat by the reduction in actual earnings?

A. Certainly; if the actual earnings on the business were less, as they would be had the rates been in effect, the operating percentage would necessarily rise.

Q. And the only reason that in Exhibit 3-L we do not find the operating expenses estimated at 55.21 per cent of the earnings, is because of the allowance which you have made in Exhibit 3-L for the reductions which would have occurred had the rates been in force during that entire year?

A. That is correct; and that is shown upon Table 16 of the present exhibit.

Recess until 2 P. M.

AFTERNOON SESSION.

WITNESS: An examination of Defts.' Ex. 3-L—Hillman, shows an error in the heading. It reads now, "Being Intrastate Business as Shown by Johnson's Ex. 59"; that should read "as Shown by Johnson's Ex. 54."

Mr. O'BRIEN: We ask that the Reporter be instructed to make that change in the original exhibit.

(Change made accordingly. G. N. Hillman, Reporter.)

Q. We desire now to go back and take up such of the tables in Ex. 3-M as require special explanation; I think it is better that we should do this as to freight matters before we enter upon passenger items. The first three tables, 1, 2 and 3, are merely copies of the records of the Northern Pacific?

A. Yes, sir.

Q. I then call your attention to Table 4; I observe that the items commence with 2; there appears to be no item 1; what is the reason for that, Mr. Hillman?

A. That happened because, on the Northern Pacific blanks which we used for convenience in taking these off, the line which was numbered 1 was used for the title "Conducting Transportation Expenses," and line No. 2 had the first account under "Transportation Expenses, Station Agents, Clerks and Laborers."

Mr. BUTLER: That is, the first sub-head upon the blank was marked "1"?

WITNESS: No, sir, the first sub-head upon the blank was marked "2", the line No. 1 being taken up with the general heading of that grand division of operating expenses which is called "Conducting Transportation."

Q. Well, that is what I meant by sub-head; the entire expenses were subdivided or classified between "Conducting Transportation, Maintenance of Equipment, Maintenance of Road and Structures," etc?

A. Yes, sir.

Q. Now, that title, "Conducting Transportation" was marked 1?

A. Yes, sir.

Q. Do the numbers appearing before the items on Table 4 exactly correspond with the numbers appearing before those items upon the Northern Pacific books?

A. Yes, sir, upon their summary of expenses; and you will note that frequently when we come to a change from "Conducting Transportation," say, a general heading, the next general heading "Maintenance of Equipment" that some numbers are dropped; the reason for that being that space was left for a further subdivision of accounts in case the road desired them.

Q. If we refer to the items on Table 4 by number, will that be a proper guide for referring to the same item upon the books of the Northern Pacific Railway Company?

A. With the exception of three items, yes.

Q. And what are those three items?

A. The first item in each of the first three general divisions, Stationery and Printing;—I have transferred those from the heading of General Expenses up to the General Account to which they belong. They were all included under accounts number 90, 91, 92 and 93 under General Expenses, and they have been placed in the division to which they belong. There will be no difficulty whatever in locating any of these expenses on the Northern Pacific books.

Q. Taking the first item, being No. 2, upon Table 4, "Station Agents, Clerks and Laborers," what amount of that item was directly allocated upon the books of the Company?

A. The Northern Pacific Railway Company have allocated to freight or passenger $357,381.76 of the total of this account, the grand total being $500,861.52; this leaves $143,479.76 as a common expense to be divided between freight and passenger.

Q. How was that common expense divided by the Company upon its books?

A. In setting up their expenses, as you will note by reference to Table 1, the Northern Pacific have created a "Terminal Division," which consists practically of the utilities in and about the Twin Cities. On account of the heavy terminal expense which is incurred here, and the location of the Minnesota Transfer in this terminal and the fact that the principal part of their passenger business is handled by the St. Paul Union Depot and the Minneapolis Union Depot jointly with other roads, the allocation as between freight and passenger expense for stations on this division is not considered applicable to the conditions existing outside of the terminal.

Q. Mr. Hillman, you haven't explained the method adopted by the Company for the division of the common expenses and I think we would all understand it better if you would first explain the method adopted by the Company and then explain your method.

A. The Northern Pacific Railway Company based the division of the non-allocated items on a train-mileage basis, using that factor, as I said in the prior part of this testimony, for each operating division, so the common expenses are divided upon a train-mileage basis.

Q. In the first place, you first, I understand, have accepted the amounts which were directly allocated?

A. Yes, sir.

Q. Now go on.

Mr. BUTLER: If it is convenient at that point, what division mileage was used? I don't think the answer covered that.

WITNESS: The expenses being set up by the Northern Pacific on each division, the train mileage on that division was used to divide the expenses of that division; and so on for each of the divisions.

Q. Always meaning the unallocated portion?

A. Yes, sir, the common expenses.

Q. Which belonged to the different divisions, respectively?

A. Yes, sir.

Q. Now, if you will, go on.

A. I would say here that I have not always followed in each case beyond a general indication as to what factor the Northern Pacific did use; that is, I have not taken each item and checked it according to the factors which I supposed of course they used in this, but that I can indicate generally what they have done in each case; there might be a case in stating how they divided between freight and passenger the common expenses where they might possibly have used another factor; I have not analyzed their methods beyond the general fact that they used whatever factor—train mileage, engine mileage, car mileage—in their mind would more nearly cover the detailed expense under consideration.

Q. Go on and tell the method by which you made the division.

A. At the Head of the Lakes, between Duluth and Superior, the same condition exists to a more limited degree, but still exists, as the Terminal Division at St. Paul; and this affects the three districts of the Lake Superior Division, for the Lake Superior Division is divided into three districts or practically operating divisions. This method of this abnormal situation at these two points precludes the possibility of my using the allocations on the Terminal Division or either of the districts of the Lake Superior Division for a basis for further divisions. I have therefore taken the St. Paul Division and its branches and the Minnesota Division and its branches and taken the allocation of the Northern Pacific road covering these portions of the road and applied them to the non-allocated portions of this expense, for the reason that the situation outside of the terminals in stations where the force was

not large enough to be divided into a freight and passenger department would be reflected by the division between stations as between freight and passenger where the force was large enough to be so divided, and upon this basis, which assigns 75.21 per cent to freight and 24.79 per cent to passenger, the common expenses have been divided.

Q. In those proportions?

A. Yes, sir.

Q. Now, Mr. Hillman, I wish you would take a pencil and make that computation and read the computation into the record as a fair sample of your method, although as I understand it, the basis used by you varied in the different items.

A. Yes, sir.

The MASTER: That is, illustrate his testimony by an example?

Mr. O'BRIEN: Yes, sir.

WITNESS: The total of the account "Station Agents, Clerks and Laborers" is, as will be noted by reference to Table No. 1, $500,861.52. Of this amount the Northern Pacific Railway Company have allocated to freight or passenger $357,381.76, assigning $337,385.85 to freight and $19,995.91 to passenger. This leaves a balance of $143,479.76 as a common expense to be divided between freight and passenger. Owing to the fact that the Northern Pacific Railway Company have created a Terminal Division, consisting practically of the utilities around the Twin Cities, and owing to the fact that a similar condition exists at the Head of the Lakes, between the cities of Duluth and Superior, I have not, in setting up this factor, taken the allocations on either the Terminal Division or the Lake Superior Division. I find that on the St. Paul Division and the Minnesota Division, and the Minnesota Division into Dakota, the Northern Pacific have allocated $56,681.29 to freight and $18,681.79 to passenger, or a percentage of 75.21 per cent to freight and 24.79 per cent to passenger. As the

operating divisions just mentioned are free from the abnormal condition at the terminals, I have assumed that the allocation of the expenses on these divisions reflect the true state of the non-allocated expenses; that is, that where a station on the line of the road was large enough to have its force distinctively divided between freight and passenger, that it reflected the conditions; and for the smaller stations, where they were not large enough to have such a division made of their forces; and I have therefore applied the 75.21 per cent to freight for the non-allocated $143,479.76, which gives me $107,911.13 freight, and have applied—

Q. Which added to the—

A. Which added to the prior mentioned allocated items gives me a total of $445,296.98, freight expense, as shown in column 5, Table No. 4. The balance of expense must necessarily be passenger.

Q. What are the conditions which make the allocated items upon the terminal divisions improper to be used with reference to the entire item?

A. Because the terminal divisions reflect the traffic, you might say, of the entire line, and the smaller stations out on the road do not have that to contend with. The terminals are located in the state of Minnesota at the Twin Cities and at the Head of the Lakes, and it is not fair to the balance of the line to use them as a factor for determining the amount of work performed by station agents and laborers outside of those terminals.

Q. State whether or not the proportion of employes who devote their time exclusively to freight or passenger is larger in the terminals than upon the line throughout the state generally.

A. It is very much larger. This would be illustrated by the fact that the allocation on the terminal division, which consists of the utilities around the Twin Cities, is $133,640.86

freight, and only $226.44 passenger; while the Lake Superior divisions show $149,222.16 freight and only $2,692.72 passenger.

Q. If the proper method of dividing the common or unallocated expenses is upon the basis of the allocated expenses, what would the result be of including the terminals as to the amounts found respectively for freight and passenger in double-column 5 of Table 4? You may state that generally without making a computation.

A. Well, it would increase the freight expenses very materially.

Q. State whether or not a greater proportion of the expenses upon the terminal divisions have been directly allocated than upon the other divisions that you speak of.

A. Yes, sir.

Q. That was made possible because of a greater number of employes devoting themselves to special duties?

A. Yes, sir; the volume of business being such that the Railroad Company have a separate set of employes for both freight and passenger business; and the Northern Pacific seem to have kept track of this right along in their accounts whenever it was possible for them to do so.

Q. Now, this being true, as I understand the matter, you having before you the total amount of unallocated or common expenses,—

A. Yes, sir.

Q. —you excluded from your computation the allocated expenses upon the terminal divisions that you have spoken of,—

A. Yes, sir.

Q. —and used as a basis for dividing the unallocated expenses to which I have referred the relation which the freight and passenger allocated expenses upon the other portions of the division bore to each other?

A. Yes, sir. I would say that if we had taken the total allocations, the percentage assignable to passenger which we would apply to the division of the $143,000, there would be in the neighborhood of six per cent instead of 24.79.

Q. The common expenses which you have described included, however, some common expenses at the terminals, did they not, or on terminal divisions?

A. Yes, sir, on the Lake Superior Division they would.

Q. But you have assigned to the expense of the passenger business 24 per cent of those expenses as well as the others?

A. Yes, sir; the conditions would be practically, in my view, uniform outside of the terminals in the state of Minnesota and reflected by this division even though a part of the unallocated items might be on the Lake Superior Division, which I omitted for the reason that the heavy Duluth-Superior terminals were included therein.

Q. May items 3 and 4 be considered together?

A. Yes sir; the same method of division employed in account No. 2 was employed in account No. 3, using the common expenses upon the allocated expenses of the non-terminal operating divisions. In this case the percentage of the allocated items on the non-terminal divisions was 72.36 per cent freight and 27.64 per cent passenger.

Q. That is, you used the percentage derived from that item and not the percentage derived from the first item?

A. Yes, I used the percentage derived from item 3.

Q. But arrived at in the same way as you arrived at the percentage in item 2?

A. Yes, sir.

Q. Item 4?

A. I would say that item 4 was treated in exactly the same way.

Mr. BUTLER: Do you get the same percentage on 4 as you do on 3?

WITNESS: No, sir; it is treated in the same way but you do not get the same percentages.

Q. What is the percentage obtained on 4?

A. 66 per cent to freight and 34 per cent to passenger.

Q. Explain item 5.

A. Item 5 is headed "Switchmen and Watchmen." The total of this expense is $444,843.85. The Northern Pacific have allocated directly to freight or passenger $310,672.05, of which they place $296,465.29 to freight account and $14,206.75 to passenger,—all of which allocation occurs in the switchmen's account. By reference to the annual report of the Northern Pacific Railway to the Railroad & Warehouse Commission, on page 59 we note that of these expenses, (the $444,843.85 mentioned above) $62,939.80 are watchmen. These watchmen have been divided on the basis of "engine mileage switching included," since it is the duty of the watchmen to guard the crossings, watch over the cars when in the yards. This division on this basis shows 73.5 per cent freight and 26.5 per cent passenger. Dividing the $69,939.80 on this basis gives us $46,200.75 freight and $16,739.05 passenger. Having allocated this amount and adding it to the amount allocated by the Northern Pacific Railway Company directly, we have yet a non-allocated expense of $71,299.50. This should be done upon the car-movement basis, as these are the expenses of switching which depend upon the movement of the cars. This could be done much more accurately were we advised of the location of the switching service and the number of cars at each switching point, freight and passenger; but not having this information available we divide the $71,299.50 on the basis of the car movement, freight and passenger, which assigns 76.56 per cent to freight and 23.44 per cent to passenger. Dividing on this basis, we have an assignment to freight of $54,595.16 and to passenger $16,696.84. Adding together the various allocations and divisions, we come to the total which

is shown in column 5 on Table No. 4 of $397,201.20 freight and $47,642.65 passenger.

Q. What do you mean by car movements and where do you find the data upon which the last percentages you gave are based?

A. I meant by "car movements" that, had the number of cars handled at the switching terminals been kept a record of, (so many freight cars, so many passenger cars) I would then be able to determine this on possibly a different percentage; but on Table No. 3 is shown the passenger car and the freight car movements, and from that Table No. 3 is derived the percentage which I have used, showing the total movement in the state and not at particular terminal points.

Q. Explain item 6, switching.

A. Item 6, switching, is all allocated and is a freight expense entirely. This is the item which was afterwards taken out of the expenses and deducted from the Switching Earnings—Freight.

Q. There is no item 7 on Table 4?

A. You say that there is no item 7. That was intended for the expenses of stockyards. The Northern Pacific have no expenses under that heading, therefore No. 7 is omitted from the numbers.

Q. The next item is numbered 8, "Telegraph Expenses." Please explain that.

A. The Northern Pacific Railway Company have allocated but a small portion of this expense, less than one per cent; allocating $904.84 to freight, and $523.07 to passenger, leaving $158,353.33 as common. Following the method of analysis in the Wisconsin method, we assign half of this expense to train operations and the other half to what might be called railroad commercial business. This division would give us $79,176.66 as being related to the train operations. Now, the movement of trains depends absolutely upon the revenue train mileage,

as the size of a train or any other factor makes no difference, it is for the trains that the dispatching facilities are used, and for the train that this portion of the telegraph expenses are used. We therefore divide this half of the telegraph expense on the basis of revenue train mileage, which assigns 54.77 per cent to freight and 45.23 per cent to passenger, giving us $43,365.06 freight, and $35,811.60 passenger. The other half of the unallocated items of this account are divided on a basis which represents the use of the telegraph facilities outside of the movement of the trains, what I have called the commercial business of conducting a railroad. It is evident that this depends upon the station service, the station expenses, the switching and what might be called the terminal expenses, which are shown in the next general division and are allocated by the railroad company. Taking the totals of freight and passenger of these items 2, 3, 5 and 9 and adding them together, we find that the proportion of freight is 86.13 per cent, of passenger 13.87 per cent. We have, therefore, divided the remaining half of the telegraph expenses on this basis—86.13 freight, 13.87 passenger, which gives us $68,194.86 freight, and $10,981.81 passenger. To this we add the allocated items mentioned above, and this gives us the total which appears in column 5 of Table No. 4, viz: $112,464.76 freight, and $47,316.48 passenger.

Q. No. 9, proportion of the operating expenses of terminals. Please explain that item.

A. The Northern Pacific road have allocated the expenses of this item. There was, however, a credit to this account of $6,152.05, which they have divided between freight and passenger on the revenue-train mileage basis. It is evident that this credit, which tends to reduce these costs of terminals, should be divided upon the same basis as their allocation of the expenses. I have therefore changed the division of this credit and credited 70.75 per cent to freight and 29.25 per cent

to passenger, which is the relation between the allocated expenses shown by the Northern Pacific. This gives me the total shown upon column 5, Table No. 4, $115,519.13 freight, and $47,530.35 passenger.

Q. That is the first item that we have come to in which the cost of transacting the passenger business has been increased?

A. Yes, sir.

Q. And the cost of transacting the freight business decreased?

A. Yes, sir.

Q. Explain item 10, "Operation of Leased Lines."

A. $726.56 of this item has been allocated by the Northern Pacific Railway Company to the passenger business. The balance, common, $963.60, was incurred upon the terminal division. I have no data for dividing this small expense, and I have accepted the division which the Northern Pacific has set up for it, which assigns for the non-allocated portion $506.35 to freight and $457.25 to passenger, giving the totals found in column No. 5, Table 4.

Q. The total is found the same in each of the columns?

A. Yes, sir.

Q. Item 11, "Freight Conductors" is all allocated to freight?

A. Certainly.

Q. In every division?

A. Every division; allocated by the Northern Pacific, and figures accepted.

Q. Item 12, "Passenger Conductors," is all charged to passenger expense?

A. In each of the computations appearing in Table 4, yes, sir, the Northern Pacific allocation of that expense.

Q. Item 13, "Freight Brakemen" is all charged in each of the computations to the expense of transacting the freight business?

A. Yes, sir.

Q. Items 14 and 15, "Passenger brakemen and Passenger Baggagemen" are charged in each of the computations exclusively to the expenses of passenger business?

A. Yes, sir.

Q. Item 16, "Freight Train Supplies and Expenses" is all charged to freight business?

A. Certainly.

Q. And item 17, "Passenger Train Supplies and Expenses," is all charged to expense of passenger business?

A. Yes, sir.

Q. Item 18, "Heating and Lighting Cars," please explain that.

A. Heating and lighting cars is allocated by the Railroad Company; I have accepted their figures. It appears the same on each of the divisions.

Q. The same is true of item 19, "Oiling cars?"

A. Yes, sir.

Q. Item 20, "Cleaning Passenger Cars," is all charged in each of the computations to the expense of passenger business?

A. Yes, sir.

Q. Item 21, "Engineers and Firemen?"

A. Is allocated by the Northern Pacific road and appears the same on all the divisions; I mean all the computations on Table 4.

Q. Item 22, "Engine Dispatchers, Wipers and Roundhouse Laborers?"

A. This is again allocated by the Northern Pacific Company, and appears the same in all computations.

Q. Item 23, "Fuel for Locomotives?"

A. This is an allocated expense, also.

Q. Item 24, "Oil, Tallow and Waste for Locomotives?"

A. This is an allocated expense.

Q. Item 25, "Other Locomotive Supplies?"

A. This is also an allocated expense.

Q. Item 26, "Water Supplies?"

A. This is an allocated expense, and I have accepted it as being entered on the Northern Pacific books as an allocated expense, but I am not particularly impressed with its correctness.

Q. Item 27, "Damage and Loss of Freight" is all charged to the expense of conducting freight business on each of the computations?

A. Yes, sir.

Q. And item 28, "Damage and Loss of Baggage," is all charged to the expense of conducting the passenger business on each of the computations?

A. Yes, sir.

Q. Item 29, "Damage to Property," you will please explain.

A. This is an expense allocated by the Northern Pacific, the allocation accepted and entered.

Q. Item 30, "Stock Killed or Injured?"

A. Also an allocated expense and accepted.

Q. Item 31, "Personal Injuries?"

A. This is also an allocated expense.

Mr. BUTLER: I would like to ask a question, just for convenience of terms: when you say "allocated expense" do you mean allocated directly, or divided on some arbitrary basis?

WITNESS: Located directly. I try to use the term "divided" when I come to the other.

Mr. BUTLER: Yes, I wasn't sure that you always did.

WITNESS: I may at times slip on that; if I do, I hope you will correct me.

Q. And accepted?

A. And accepted.

Q. Item 32, "Wrecking?"

A. This is allocated.

Q. And accepted?

A. And accepted.

Q. Item 33, "Car Mileage Balance?"

A. That is allocated and accepted.

Q. I note a cross opposite that item and at the foot of the table the word "deduct." Do you mean that that is a credit which is deducted in the totals?

A. Yes, sir; wherever that cross appears the account is deducted from total and not added; it is a credit to the account and not a debit. In other words, they leased a certain amount of passenger car mileage, and in making the total of the column for the passenger expenses, that would not only not be included in the addition but would be deducted from the totals. It is what we call a red-ink figure.

Q. Item 34, "Hire of Equipment?"

A. Allocated by the Railway Company.

Q. And accepted?

A. And accepted.

Q. Item 35, "Superintendents?"

A. The duties of the superintendent are to supervise and direct all of the operations of conducting transportation, and his services are therefore divisible upon the percentages shown by all of the preceding items which have been assigned to freight or passenger, which in this case assign 78.6 per cent to freight and 21.4 per cent to passenger. Applying these percentages they give me the result entered in column 5 of $64,303.63 freight, and $17,507.61 passenger.

Q. Now, that item was divided by the Northern Pacific upon its books upon what basis, Mr. Hillman?

A. Train-mileage basis.

Q. And that gave what percentage between freight and passenger?

A. 57.21 per cent freight, and 42.79 per cent passenger.

Q. Why should that item "Superintendents" not be divided

upon the train mileage basis, in your judgment?

A. Because the superintendent has the supervision of the entire business of conducting transportation. He is not a train-mileage man. The train mileage is an incident in his work, not the whole work; he has supervision of each one of these operations, he has control of the men, he attends to the distribution of the material, to see that it is properly expended; it is all under his supervision, and therefore his time is taken up by the supervision of these items and not looking over train mileage.

Q. And for those reasons you have adopted the relation of the total of all the other items rather than train mileage?

A. Yes, sir.

Q. There seem to be no numbers 36 or 37, and the next is No. 38, "Other Expenses."

A. That has been allocated by the Railroad Company and their figures have been accepted in my computation. On the computation of Mr. Peabody they have not been accepted, as he insists upon a train-mileage basis in his first divison; as shown in column No. 2 for that expense, we have afterwards, where he includes switching, allowed it as an allocation, as he has allowed allocation in that regard.

Q. But in your column 5 it is accepted?

A. It is accepted, yes.

Q. And your reference to Mr. Peabody is simply to illustrate, because there is a break in the continuity of that expense in column No. 2, "Peabody Exclusive of Switching." Item No. 39, "Stationery and Printing AA"?

A. That has apparently been allocated by the Railway Company and I have accepted their figures. That is the account which appears under their expenses as numbered 90, and was under "General Expenses," but it being an expense of conducting transportation, I have transferred it to that general heading.

Q. The change makes no difference at all in the total?

A. No, sir. I would say that originally stationery and printing, no matter where incurred, was classified by the Interstate Commerce Commission as a general expense, and that the railroad companies for their own purposes—and in which they were correct—kept that in detail for each general subdivision of the expenses, and that is the way the Northern Pacific do it, A, B, C, D, under their general expenses, and I have therefore transferred it to its proper general account. This completes the distribution of the first general division of the operating expenses headed "Conducting Transportation" and gives the totals as shown in column 5 of $3,611,228.58 freight, and $989,218.18 passenger.

Q. As against—

A. As against $3,525,619.30 freight, and $1,074,827.46 passenger, shown on the Northern Pacific division in double column No. 1, this table.

Q. Item 44, seems to be the next item in order, "Repairs of Passenger cars," and that, I observe, has been all charged to the expense of passenger business on each of the computations?

A. Yes, sir.

Q. And item 45, "Repairs of Freight Cars" has been all charged to the expense of conducting freight business upon each of the computations?

A. Yes, sir.

Q. Please explain the method of dividing item 46, "Repairs of Work Cars."

A. This item is divided between freight and passenger, on the basis of the percentage between freight and passenger shown by the next general division, that is, the Maintenance of Way and Structures, since it is the province of the work-cars to perform almost exclusively the service indicated under "Maintenance of Way and Structures." This shows an

apportionment of 75.3 per cent freight and 24.7 per cent passenger, and upon this basis the division is made.

Q. On what basis is the division made in double-column 1, Northern Pacific, if you know?

A. On revenue-train mileage basis.

Q. Item 47, "Repairs of Locomotives"?

A. This is allocated by the Railway Company, their allocations accepted and figures entered.

Q. There is no item 48. Item 49, "Other Equipment Expenses."

A. Allocated by the Railway Company, their figures accepted and entered.

Q. Item 50, "Supervision of Equipment."

A. The supervision of equipment was taken upon the proportion which all the preceding accounts in this general division of operating expenses, Maintenance of Equipment bears between freight and passenger; in other words, the superintendence here, as in the case of conducting transportation, is devoted to the supervision of the work which is going on and is reflected by that division between freight and passenger of the preceding accounts. This assigns 80.16 per cent to freight and 19.84 per cent to passenger.

Q. On what basis is that item divided in double-column 1 Northern Pacific?

A. I think that that is divided on a train-mileage basis.

Q. Item 51, "Stationery and Printing B?"

A. I have divided this between freight and passenger on the same basis as I have divided the supervision of the equipment, 80.16 freight and 19.84 passenger, as, upon examination of the Northern Pacific accounts, it did not appear to me that this item had been allocated. This completes the division between freight and passenger of the next general division, Maintenance of Equipment, and gives the figures as shown in

column 5 of Table 4 of $952,012.88 freight, and $235,679.70 passenger.

Q. As against what in the double-column 1?

A. As against $931,983.76 freight, Northern Pacific, and $255,708.82 passenger.

Q. In other words, upon those items which amount to a total sum of about $1,187,000, you have increased the proportion charged to freight about $20,000?

A. About $20,000.

Q. There seem to be no items number 52, 53, 54, or 55.

A. They were probably vacant lines on the Northern Pacific's statement and intended for other items to be put in there.

Q. The next is item 56, "Removal of Snow and Ice." Explain the division adopted for that item.

A. The removal of snow and ice is to facilitate the train movements; as the snow and ice must be removed from the yards as well as from the line of the road, I have divided this expense upon the basis of the "Train Mileage Switching Included," which assigns 71.35 per cent to freight and 28.65 per cent to passenger, giving a total of $65,885.92 freight and $26,455.94 passenger, as shown in column 5 of Table 4

Q. Had that item been divided according to the Peabody method shown in double-column 6, the portion charged to freight expenses would have been slightly increased over your figures?

A. Yes, sir, in that computation it would have been slightly increased, though why it should be I can't exactly see now, as Peabody's basis is on the "Train Mileage Switching Included."

Q. Isn't that your basis?

A. Yes, sir. I am afraid that is a clerical error in this computation there; it amounts to less than $400, but it looks to me as though an error had been made in that computation.

Q. Now let me call your attention to double-column 2,

and there the portion charged to freight seems to be still more increased?

A. Yes, sir; that is a different basis.

Q. Item 57, "Repairs of Roadway and Track." If you will explain that.

A. In this account and others which pertain to the maintenance of the way and structures there are two classes of expenses: those which depend directly upon the train wear, and those which depend upon the depreciation or the decay of the utility. The amount which is due to each of these different causes has been a matter of considerable discussion. The best authorities on the subject follow that set out upon the decision of the Wisconsin Railroad Commission which assigns 10 per cent of the roadway and track to the wear of the train, and the balance (90 per cent) to be taken care of under the head of Decay or Weather Stress, as it is frequently termed. This method or percentage has been adopted by me in this computation. Taking the 10 per cent of this total, I have divided it upon the basis of the train weights. I find from a statement furnished me by the transportation department of the Northern Pacific Railway that the average weight of a passenger train in the state of Minnesota is about 377 tons; I have also computed the average weight of a freight train, and find that it approximates 1,110 tons. The switch movement may be considered as averaging 200 tons. Multiplying the mileage of each class of train, passenger, freight and switching, by these average weights, gives us the relation of the weights chargeable to freight and passenger of 81.648 per cent freight and 18.352 passenger. Dividing the 10 per cent due to traffic wear on this basis, we have $47,934.05 freight, and $10,774.13 passenger. This leaves us 90 per cent to be divided upon some other basis. The renewals of decay or decadence or weather stress to freight and passenger must come from the net earnings of the road, and I

have therefore divided the remaining 90 per cent between freight and passenger on the basis of the net earnings of the road, freight and passenger, as shown by all accounts up to this point, which gives a percentage of 72.76 freight and 27.24 passenger. Adding the results thus obtained, we have the figures shown in column 5 of Table 2 of $432,378.66 freight, and $154,703.08 passenger.

Q. Upon what basis is that item divided in double-column 1, Northern Pacific?

A. That is divided on a revenue-train mileage basis.

Q. There seems to be no item 58. Now, item 59, "Repairs of Cribbing and Bulk Heading?"

A. I have accepted the figures furnished by the Northern Pacific Railway Company; it is an allocated expense.

Q. And appears the same in each of the computations?

A. Yes, sir.

Mr. BUTLER: Is that an allocated item, or a divided item?

WITNESS: An allocated item, as far as I can tell.

Q. It can't be an allocated item as you have used that term, can it?

A. Yes, sir, they could readily allocate the repairs of cribbing and bulk-heading according to the use of whatever work was repaired.

Q. Well, however they have divided, you have accepted the division?

A. Yes, sir.

Q. Item 60, "Repairs of Bridges and Culverts."

A. In the repairs of bridges and culverts I have considered that the 10 per cent allowed, as in the case of repairs of roadway and track, for the wear of the train was not sufficient, and have set the percentage of 20 as being the basis to properly divide this expense. I had a consultation on this point with Prof. Myers, and deferred to his opinion which leaned toward 10 per cent—

Mr. BUTLER: I think we will object to that; I think that is manifestly inadmissible, hearsay, irrelevant, and move to strike it out.

Q. Go on and state what you did.

A. To the extent of allowing the percentage of wear upon the bridges as 15 per cent due to train wear, leaving 85 per cent for what may be termed the weather stress proportion; these items of 15 per cent of the total are divided upon the train weights, as account No. 57, and the other 85 per cent upon the basis of net earnings, as in account 57, giving the result shown in column 5, Table No. 4, of $71,713.16 freight, and $25,074.61 passenger.

Q. I understand, Mr. Hillman, you said that your judgment was that in the case of repairs of bridges and culverts, because of the character of those structures, 10 per cent was not sufficient to allow as the depreciation caused by the passage of trains, and that you inclined to the opinion that the proper percentage to allow for that cost was 20 per cent; that, after a consultation with Prof. Myers, of the Wisconsin Commission, you adopted 15 per cent?

A. That is the fact; that I compromised between my judgment in the matter and what Prof. Myers thought and adopted 15 per cent.

Adjourned until Friday, May 21st.

FEDERAL BUILDING, St. Paul, Minn., Friday, May 21, 1909. The hearing was resumed at 10 A. M.

CONWAY W. HILLMAN,
recalled on behalf of Defendants, testified:

By Mr. O'BRIEN:

Q. When we adjourned last evening we were considering item 60 of table 4. Continuing with reference to that item,

I understand you to say that after dividing the total of the item by assigning 15 per cent of the total of the item to depreciation caused by the movement of trains and 85 per cent to weather-stress, as you have described, you divided the 85 per cent between freight and passenger upon the basis of net earnings, freight and passenger, in the state of Minnesota?

A. Yes, sir.

Q. Did you mean the net earnings from both state and interstate business?

A. Yes, sir.

Q. And that, together with the division of the 15 per cent, upon the basis described by you, produced the totals shown in double-column 5?

A. Yes, sir.

Q. Was this item divided in the same way in arriving at the result shown in double-column 1—Hillman?

A. No, sir.

Q. What difference was there in the method of dividing the item?

A. In Hillman-1, what we have termed the weather-stress expenses—

Q. That is, 85 per cent?

A. The 85 per cent—was divided on the gross-earnings basis.

Q. Item No. 60, divided as you have described for double-column 4, (that is, 85 per cent of the item divided upon a gross-earnings basis) gives a total of $73,900.71 for freight, while, if that item is divided upon the net-earnings basis, as you have described for double-column No. 5, it would give $71,713.16 for freight?

A. Yes, sir.

Q. How many of the items in this account does this same testimony apply to? and please give the numbers and title of the items.

A. It applies to account No. 57, repairs of roadway and track; account No. 60, repairs of bridges and culverts; account No. 61, cattle-guards, road crossings and track-signs; account No. 62, renewals of rails; account No. 63, renewals of ties; account No. 64, renewals of fastenings; account 65, renewals of frogs, switches and miscellaneous track material; account No. 67, repairs of fences; account No. 70, repairs of water supply; account 72, repairs of telegraph. That is all.

Q. The other items, if I understand it, appearing in the different computations, are indentically as shown in Hillman-4 and Hillman-5?

A. Yes, sir.

Q. And the different basis adopted by you for the division of the particular items to which you have referred accounts for the total difference between the first column of double-column 4 and the first column of double-column 5, which apparently amounts to about $24,000?

A. $23,000 in round numbers.

Q. You have said that this same testimony applies to these items. What I meant in asking you that was whether each of these items which you have now enumerated were divided upon the same theory.

A. Yes, sir. The proportions, of course, in each item would differ, but the net-earning basis enters into the computation in each one of these on the percentage which will be given in each one as divided on the net-earnings theory.

Mr. BUTLER: Did the witness not say gross earnings divided the 85 per cent of item 60 and net earnings divided 90 per cent of item 57?

Mr. O'BRIEN: No, as I understand it it is this, Mr. Butler: in item 57 ten per cent was assumed to constitute the depreciation caused by the operation of the road and 90 per cent the weather-stress. In the computation shown in double-column 4 the 90 per cent of item 57 was divided upon the gross-earn-

ings basis; in double-column No. 5 the 90 per cent was divided upon the net-earnings basis. Now, when we arrive at item 60, that being bridges and culverts, he assumed that 15 per cent of the depreciation was due to operation and 85 per cent to weather-stress, and in double-column No. 4, the 85 per cent of weather-stress was divided upon a gross-earnings basis; and in double-column No. 5 this 85 per cent was divided upon the net-earnings basis, the only difference in these items being that whatever depreciation was assumed to be caused by the weather-stress was divided in double-column No. 4 upon the gross-earnings basis and in double-column No. 5 upon the net-earnings basis. (To the witness.) Is that correct, Mr. Hillman?

WITNESS: That is correct.

Q. Now, that same statement applies to items 57, 60, 61, 62, 63, 64, 65, 67, 70 and 72?

A. Yes, sir.

Q. Please let us know the first division or assumption made with reference to item 61, cattle-guards, road crossings and track signs; that is, how much of that item was assumed to be chargeable to use and how much to weather-stress.

A. 25 per cent in this account is taken as due to train wear, and the balance (75 per cent) is divided on the net-earnings basis. This gives us $8,231.40 to be divided between freight and passenger on the basis of train wear, and $24,694.17 on the net-earnings basis.

Q. You are now referring to double-column 5?

A. Double-column 5, yes, sir.

Q. In double-column 4, as I understand, the 75 per cent was divided upon the gross-earnings basis?

A. Yes, sir.

Q. Upon what basis was the first division of item 62, renewal of rails, made?

A. In the item renewal of rails the conditions are re-

versed. The principal wear to a rail is due to train movement, we therefore have taken 90 per cent of the wear of the rail as due to train movement and 10 per cent due to the weather-stress account.

Q. State with reference to item 63, renewal of ties.

A. In this account, 17.5 per cent is assigned to train wear and 82.5 per cent to weather-stress. The reason for the assumption of 17.5 per cent on this account was due to some experiments made on the Chicago, Milwaukee & St. Paul road, wherein the abrasions and damages to ties were counted and estimated, which gave a result of 17.2 per cent. I adopted 17.5 per cent as being the figure for that.

Q. Please state with reference to item 64, renewals of fastenings.

A. We have divided the item of renewal of fastenings on the same basis as renewals of rails, 90 per cent due to train wear and 10 per cent due to weather-stress.

Q. Please give the information with regard to item 65, renewals of frogs, switches and miscellaneous track material.

A. In the case of the renewals of frogs, rails and switches, this account as set up includes the repairs to signal plants, interlocking, and switches. The wear on the items just mentioned is due to the train movements and not to the weight of the trains. The switch movements are also to be included in this movement of interlocking switches and towers. A comparison of the expenses for this year with those of the following year, where this account is kept separate, shows about 22 per cent of the total of this item is due to the interlocking, switching and tower-plant movement, as it might be termed. We have therefore divided that 22 per cent upon the revenue-train mileage basis, and the balance is therefore left as dependent and worn by the train movement, the same as the rail. We have therefore divided $31,989.15 on the basis of train miles, 57.52 per cent freight and 42.48 per cent pas-

senger; the balance of the account, $113,415, is divided on the train-weight basis of 81.648 per cent freight and 18.352 per cent passenger. The sum of these divisions gives us the totals which are entered in column 5.

Q. I will omit reference to item 66 for the present, so as to follow this particular class of items, and ask you to explain item 67, "Repairs of fences."

A. The repairs of fences has no reference to a wear by train movement and is therefore divided in its entirety on the net-earning basis of 72.76 freight and 27.24 passenger.

Q. In double-column 5 you mean, I presume?

A. In double-column 5.

Q. And on the gross-earnings basis in double-column 4?

A. Yes, sir.

Q. Please explain item 70, "Repairs of water supply."

A. The use of the water has already been allocated under Conducting Transportation, and we have taken one-half of the repairs and renewals of water-tanks, etc., as due to the use of the water, on the basis of 58.7 freight and 41.3 passenger, as shown in the account above of water supply in conducting transportation account, No. 26.

Q. That is, account No. 26 was entirely allocated by the Company between freight and passenger business and that allocation accepted?

A. Yes, sir.

Q. Now, the repairs to the buildings connected with the water supply you have divided upon the same proportion?

A. One-half, considering that is the portion of the water plant which was used by the train movement; and the balance is on the weather-stress basis.

Q. Or earnings basis?

A. And divided on the net-earnings basis.

Q. Please explain item 72, repairs of telegraph and the next item, repairs and renewals of telegraph.

A. This item is not affected in any way by the train wear but is entirely due to weather-stress, and is divided upon the basis of the net earnings of 72.76 freight and 27.24 passenger.

Q. You are now referring to the method of division adopted in double-column No. 5?

A. Always double-column 5 unless you ask a question referring to column 4.

Q. In double-column No. 4 it is divided on the gross-earnings basis?

A. Yes, sir.

The MASTER: I understand your preference is always double-column No. 5 in making the division?

WITNESS: Yes, sir, unless asked specifically concerning some other double-column.

The MASTER: But I say your preference, in making these divisions, is double-column No 5?

WITNESS: Yes, sir.

Q. Mr. Hillman, even assuming that the division of the particular items to which we have referred upon the net-earnings basis rather than the gross-earnings basis is correct, it would be necessary to determine, before that could be done, whether there were any net earnings or not, wouldn't it?

A. Yes, sir, it would.

Q. And in the total difference which would be made by dividing these items upon what you believe to be the net earnings rather than what the Company concedes to be the gross earnings would be about $24,000?

A. In the Northern Pacific case, yes, sir.

Q. Well, that is the only case we are speaking of.

A. Yes, sir.

Q. And those are the only items and that is the total amount affected by this question as between gross and net earnings?

A. It would affect other accounts but very slightly when

we come to the division of general expenses, on account of a proportion taken there.

Q. And the use of the net-earning basis, shown by you in column 5, is to reduce the freight expenses by $24,000?

A. Yes, sir.

Q. If the gross-earnings basis were adopted, it would tend to increase the freight expenses?

A. Yes, sir.

Q. And in the final total given by you the freight expenses under your entire division are increased about $400,000 over the freight expense as contained in the division of the Northern Pacific road?

A. Yes, sir.

Q. Now, we will return to item 66, maintenance of leased lines; will you please explain that item?

A. That is the maintenance of leased lines. We have accepted the Company's allocation and the figures appear in column 5.

Q. Explain item 68, "Repairs of snow-fences and snow-sheds."

A. The repairs and renewals of snow-fences and snow-sheds—these utilities are used entirely to keep the track clear for the movement of the trains and are on the right-of-way outside of terminals; the switching, therefore, does not enter into it, and they have been divided upon the revenue train-mile basis, as it was for this purpose they were maintained, and as far as they were in use or utilized, it saved the cleaning of snow and ice, and I have therefore divided on the revenue-train mileage basis, which assigns 57.42 per cent to freight and 42.58 to passenger.

Q. The division there seems to be almost the same as the division found in double-column 1, Northern Pacific?

A. Yes, sir. What small difference would accrue between double-column No. 1 and column No. 5 would be due to the

fact that the Northern Pacific have divided that on a revenue-train mileage basis by divisions, while I have taken the state of Minnesota as a unit in the division.

Q. Explain item 69, "Repairs of buildings."

A. The expenses of this account have been partially allocated; evidently allocated wherever the use of the buildings could be definitely determined. Leaving out of question the terminal divisions, where the conditions are not normal,—and I would say on these terminal divisions the entire amount of the repairs and renewals of buildings have been allocated—we have divided the common expense on the basis of the allocation outside of the terminal division for the same reasons as have been stated in full in the discussion of account No. 2, the first account on this division of operating expenses.

Q. Explain item 71, "Repairs of docks, wharves, landings and inclines."

A. These expenses have been allocated presumably according to their use by the Northern Pacific Railway Company, and their allocation has been accepted.

Q. Explain item 73, "Repairs of shop tools and machinery."

A. Item 73, shop tools and machinery, has been divided upon the basis as shown by the general division Maintenance of Equipment, as it is for this purpose that the shops are maintained and the tools and machinery used. This assigns 81.156 per cent to freight and 19.844 per cent to passenger.

Q. Explain item 74, "Stationery and printing *C*."

A. This item has been divided upon the basis of all the preceding accounts in this general division.

Q. That completes—

A. That completes the maintenance of way and structures accounts, giving $1,126,874.60 freight and $367,155.53 passenger.

Q. And in double-column 4?

A In double-column 4 the assignment was $1,149,738.82 freight and $344,291.31 passenger,—a difference of approximately $23,000 less to freight expenses in column 5 than in column 4.

Q. And the totals found in double-column 1 were $872,217.42 freight and $621,812.71 passenger?

A. Yes, sir..

Recess until 2 P. M.

AFTERNOON SESSION.

WITNESS: Judge, I desire to make a statement now with reference to a question that you asked me this morning,—I spoke to you about it as we were leaving the room. When you asked me if my preference was always for column No. 5, I stated that it was. My idea, when I made that statement, was that it had been the method adopted in this analysis which follows. I would state here that my preference is for column No. 4 if you mean for the purposes of what I deem the correct method. The tables of Ex. 3-M have been prepared on the basis of column No. 5. The net result by the application of the figures found in column 4 was so slight that I did not deem it necessary to correct the long computations as the methods would be absolutely the same no matter which column (4 or 5) had been used.

Q. As I understand the matter, the only difference in double-columns 4 and 5 occurs in these items that were specially referred to to-day?

A. Yes, sir; and the small resulting change in percentages in the last general division.

Q. Can you prepare a final statement showing the result as to each of these double-columns that would be arrived at by adopting the method in each column?

A. Yes, sir, that could be done.

Mr. O'BRIEN: We will ask Mr. Hillman to prepare those

tables and present them before we finish with this Table 4.

Q. There are no items numbered 75, 76, 77, 78 or 79.

A. No, sir.

Q. I now ask you to explain item 80, traffic department expenses.

A. In the Northern Pacific division of expenses and in the prescribed form of the Interstate Commerce Commission, these traffic expenses have been made a part of the general expenses. For the purposes of further comparison, and as they are distinct items, I have made a division of them. If any reference is made to the Northern Pacific Railway Company's books and these tables, it will be necessary to add traffic expenses and total general expenses together to obtain the result which they have under their General Expenses. Account No. 80, traffic department expenses, I find that the Railway Company has allocated $27,618.63 of the total of $34,827; and I have divided the non-allocated items upon the basis of their allocation, which gives me the result found in column 5 of Table No. 4.

Q. State generally the character of the expenses which are included in item 80 in your table under the head of Traffic Department Expenses.

A. They would be the superintendence of this department (the traffic department), the manager, his clerks, and all expenses connected with him and with that department, save practically the maintenance of outside agencies, travelling soliciting agents and those things.

Q. And you have divided the unallocated portion of the total of that item upon the same ratio as the allocated items bear to each other?

A. Yes, sir.

Q. Explain item 81, outside agencies.

A Item 81, outside agencies, the Railway Company has allocated to freight and passenger $59,797.51 of the $85,000.

I have followed the same plan here and divided the common expense (the balance) on the basis of the allocations which assigns 45.58 per cent to freight and 54.42 per cent to passenger.

Q. Explain item 82, advertising.

A. This is almost entirely allocated by the Railway Company, $21,129.29 being allocated and leaving only $1,012.61 for division as common. As whatever is common in this account of traffic is for the obtaining of earnings, the common expense has been divided on the basis of the gross earnings which assigns of the $1,000, $763.71 to freight and $248.90 to passenger. Adding these figures to the allocations it gives us the figures shown in column 5 of Table 4. This completes the general division of the traffic expenses, showing a total of $63,148.79 to freight and $79,654.67 to passenger.

Q. Explain item 83, salaries and expenses of general officers.

A. Before explaining that I would like to explain item 87. which is rents of buildings, tracks, yards and terminals.

Q. Very well.

A. This is not in the nature of the other general expenses and has been allocated by the Northern Pacific Railway Company between freight and passenger and their figures have been accepted and entered on Table No. 4, column 5. We now go to account No. 83, salaries and expenses of general officers. The duties of the general officers dominate the entire line and the entire amount of expenses, and should therefore be divided in making the division between freight and passenger on the sum of all the expenses, freight and passenger, up to this point, plus account 87, and they have been so divided. This assigns 76.973 per cent to freight and 23.027 to passenger.

Q. I notice a difference in this item between double-columns 4 and 5.

A. Yes, sir. That, as I said before, would be because of the fact that all of the expenses up to this point have been taken into consideration in the division of account No. 83, and the difference between the method in column 4 and the method in column 5 would necessarily make a slight difference in account No. 83 and subsequent accounts, which are divided on the totals of expenses up to this point.

Q. Then I was in error in assuming that all of the items in columns 4 and 5 except the specific items to which we had reference this morning are the same?

A. Yes, sir. I think I stated in my testimony this morning that this change would slightly affect the division of general expenses, being dependent on the expenses up to that point. If I did not so state I should have done so.

Q. Explain item 84, salaries of clerks.

A. The next item is salaries general office clerks, No. 84. The Railway Company has allocated directly to freight and passenger $32,601.40 of the $68,632.68 charged to this account. I divided the non-allocated portion upon the basis of the general officers, viz., 76.973 to freight and 23.027 to passenger.

Mr. BUTLER: That is on the basis of item 83?

WITNESS: Yes, sir.

Q. Explain item 85, general office expenses.

A. The items allocated in this account by the Railway Company here are so small that they have been neglected. I forget the amount, but it is so small that I did not take it into consideration. We have therefore divided this expense upon the same basis as general office clerks, as the expenses of general office would naturally follow the expenses of the clerks using those utilities.

Q. Item 86, legal expenses, is the next.

A. The Railway Company has allocated $2,935.85 of this expense, leaving to be divided upon other bases $19,326.44. I have divided this $19,326.44 upon the same basis as the sal-

aries of general officers, and for the same reasons, which gives us the total figures shown in column 5, Table 4.

Q. You have already explained item 87.

A. Yes, sir.

Q. The next is item 88, insurance.

A. This item has been divided on the net-income basis, since it is for the protection of the property against loss by fire or otherwise, and would have to be taken from the net earnings up to this point for its division between freight and passenger.

Q. Is there any difference in that item in the various computations shown in the different columns of Table 4?

A. Yes, sir.

Mr. BUTLER: Do you distinguish between the phrase "net income" and "net earnings?" In this insurance matter your basis of division, you said, was net income. You have used the phrase "net earnings" heretofore.

WITNESS: I will ask that that be corrected to "net earnings." It was a slip of the tongue.

Q. What do you mean by "net earnings" as you have used that term in your last answer?

A. I mean by "net earnings" the amount which would be shown by taking the gross earnings, freight and passenger, and from them deducting the amounts which have already up to this point been determined as freight and passenger operating expenses, distinctively, thereby omitting from the operating expenses such items as we propose to divide on that basis, such as the weather-stress items; and in that sense I have used the phrase "net earnings" here.

By Mr. DURMENT:

Q. If I understand that right, you take the gross earnings of freight and deduct from it the sum of the allocated items of expense and that leaves the net earnings of freight, then

take the gross earnings of passengers and deduct from it the sum of the allocated items of the passenger expenses, and that leaves the net passenger earnings; is that what you mean?

A. Deducting from them not only the allocated items but those which have been divided upon a basis which does not require the application of what I have called the net earnings.

Q. Then in those expenses you take the gross freight earnings, deduct from it the sum of all allocated freight expense and other sums of expense theretofore determined as fixed sums, and in the same way with passenger, and the result is what you call "net earnings?"

A. What I have called net earnings, in order to apply that factor to the division of the remaining operating expenses, yes, sir.

Q. Then it is not net earnings in the sense of what is left out of the gross earnings after all expenses have been paid?

A. No, sir.

Mr. BUTLER: Can you give the figures of net earnings of the freight and the net earnings of the passenger which you did use?

WITNESS: Yes, sir, I can give you the percentages, and I can give you the figures by reference to my working papers, but I don't happen to have them with me just now.

Mr. BUTLER: The next time you come, I would be obliged if you would bring those—those two nets.

WITNESS: Yes, sir.

By Mr. O'BRIEN:

Q. There seem to be no items 89, 90 or 91.

A. As I said before, No. 90 has been transferred up above and is called 39. No. 91 has been transferred above and is called 51, as those two items, of stationery and printing, belong properly in the conducting transportation and the main-

tenance of equipment divisions, respectively. This brings us to item No. 92.

Q. Explain item 92, stationery and printing, D.

A. As the use of the stationery is dependent upon the other expenses in the general expense account, I have divided this on the basis of all the other general expenses up to this point, giving us 77.3 per cent freight and 22.7 passenger. This is for items 92 and 93 together.

Q. Why is it that the total of the double columns is different in that item as shown in double-column 1 and double-columns 4 and 5?

A. The total, you mean, of freight and passenger, both?

Q. Yes, the total amount found in column 1 in item 92 is less than the total amount found in column 4.

A. Possibly I did not make myself clear. I have summed 92 and 93 in one account in the division subsequent to the Northern Pacific method and treated them all as stationery and printing and general expenses, so that the sum of 92 and 93 is carried out in the division in one line opposite No. 92 on the subsequent divisions to column No. 1.

Q. No. 94, then, is the next item, New York office.

A. I have divided this on the same basis as the general office salaries and expenses, as the New York office is really a part of the general offices of the Company.

Q. Item 95, miscellaneous.

A. The Railway Company has allocated to freight and passenger $1,511.39 of the $8,606.14 which is shown charged to this account. The balance, or the difference between those two amounts, we have divided as all other general expenses, on the percentage of all the preceding items up to this point giving us the figures which are shown in column No. 5. This completes the distribution between freight and passenger of the general office expenses, and also the total operating expenses for the road.

Mr. O'BRIEN: May it please the Court, it has seemed to us at this time that before we proceed to the details of another table, we ought to be able to present the final computations, based upon each of these columns, and as that will take some time, we would like to ask for an adjournment now until Monday morning.

Adjourned until Monday morning, May 24th.

FEDERAL BUILDING, St. Paul, Minn., Monday, May 24, 1909, the hearing was resumed at 10 o'clock A. M.

CONWAY W. HILLMAN,
recalled on behalf of Defendants, testified:

By Mr. O'BRIEN:

Mr. O'BRIEN: Mr. Hillman tells me that he has not been able to have completed all of the computations with reference to Table 4, and we had better, I think, go on with the other tables and that can be presented whenever we get through.

Q. Calling your attention to Table 5, the computations contained upon Table 5 were, I think you said, compiled from agents' abstracts

A. Yes, sir; they were taken from the agents' abstracts on direct Northern Pacific way-billing and the agents' abstracts for interline forwarded and received, and the overhead tonnages from the auditor's statement,—overhead tonnage being that portion of the tonnage which passes over the line where the Northern Pacific would be practically a "bridge" having neither a terminus or an originating point on the Northern Pacific Railway Company's lines.

Q. What do you mean by agents' abstracts?

A. The agent reports to the freight auditor each month his freight forwarded and received; his freight forwarded showing from his station to each station on the line of the Northern

Pacific and showing weights, amounts of freight and money.

Q. In making the computation shown upon Table 5 with reference to the manner in which the freight was carried, you have assigned to through trains the freight which was through freight as you have described it and to local trains the freight that was local as you have described it?

A. Yes, sir, and expressed that in ton miles.

Q. Without reference to whether that freight was actually so carried or not?

A. Yes, sir.

Q. In Division A of Table 6 we find the computations prepared from the conductors' train-sheets?

A. Yes, sir.

Q. To what portion of the road does Division A of Table 6 refer?

A. To the main line only.

Q. While Table 5 contains the information for the entire line in Minnesota?

A. Yes, sir, the entire line in Minnesota.

Q. Both main line and branches?

A. Yes, sir.

Q. Each of these tables is for the same period, the months of April and October, 1907?

A. Yes, sir.

Q. And has anything been assumed with reference to the movement of freight in Division A of Table 6?

A. No, sir, there is nothing assumed, it is taken from their records. I suppose the point you ask me about is this: in order to obtain the ton-miles from this record I have had only the weight of the train leaving the initial point. We assumed that that train passed over its run carrying the same tonnage; we assumed this for both through trains and local trains. The basis of that assumption is that where a train would unload as it passed over the line, the reverse would be true as it came

from the other point, the traffic being practically homogeneous, and that therefore if it started with 800 tons going west, for example, and would land at the end of its run with 400 tons, on the other hand, the train coming east would start with a lighter load and pick up and reach its terminus with a heavier loading which would be relatively the same.

Q. Is the computation contained in Division A of Table 6 as accurate as you could make it from the conductors' train-sheets to which you had access?

A. From the traffic department's records of the conductors' train-sheets, yes, sir. The conductors' train-sheets were not available in their entirety, and had I taken the conductors' train-sheets it would have required me to figure first that the reports of all the trains run were there, and then to figure out the ton-miles and the loading. It would also have required me to figure out an average load for the cars picked up, as they are not given on his report; and I considered from a test which I made between these and other figures, that I had the correct tonnage, and so let it go at the loading at the initial point multiplied by the miles run by the train.

Q. In this respect is there a difference in the way in which the records are kept by the Northern Pacific and the Great Northern road?

A. Yes, sir.

Q. Have you been able to obtain fuller information from the Great Northern road upon this point?

A. Very much fuller information. I would say here that this is the conductors' weights at the initial point. On the Great Northern road I have not only that factor but I have the factor of the loaded and empty car mileage on each train worked out; I also have the ton-miles made by each train worked out.

Q. When you say worked out, do you mean worked out by the Company?

A. By the Company, yes, sir. The record is very full and complete there.

Q. Have your computations upon that been completed?

A. No, sir; they will probably be in my hands in the next two days. I would say also that on the Minneapolis & St. Louis road they keep the loaded car-miles on each train. They do not keep the net ton-miles either by the initial point or by the work of the conductors' sheets.

Q. Is there anything in the nature of the work itself or the records maintained by the Northern Pacific which prevents the keeping of the additional information by that company which you found and obtained from the other companies you mention?

A. No, sir, not that I know of; if one company can do it, of course the other could.

Q. Now, does Division A of Table 6 agree with Table 5 as to the total ton-miles?

A. No, sir, there is a very decided difference. If you will note that on Table 5 the total ton-miles for April and October are in the neighborhood of 355,000,000 ton-miles, and that is for the entire state of Minnesota. On Table No. 6 the net ton-miles for the main line in Minnesota amounts to practically 305,000,000. Making the allowance for the amount carried on the branch-line trains of 7.74 per cent (which is shown in Division B of Table 6) it would make a net difference of about 78,000,000 ton-miles between the two tables.

Q. And in carrying forward your computations, have you used as a basis Division A of Table 6 or Table 5?

A. Division A of Table 6, down to the point where I determine the cost of local train work; from that on I have used Table No. 5, with the results of local train work cost as against through train cost, shown in toto on Division C.

Q. Have you made a computation for the purpose of ascertaining whether or not the cost of transporting intrastate

freight in Minnesota would be increased or lessened if such computation was based entirely upon Table 5?

A. Yes, sir; the cost would be increased of doing intrastate business.

Q. How much would that cost be increased?

A. The cost would be increased about $38,000, and therefore instead of the total of $1,182,490.89, as shown on Table No. 7, intrastate freight expenses, we would have a total of $1,221,280.22. I would say incidentally that that would increase the cost of doing business on local trains to 1.90 as against 1.80, or it would make local train work cost 90 per cent more than through train work instead of 80 per cent as shown in Division C of Table 6.

Q. And what difference would it make in the percentage relations shown upon Division D of Table 6?

A. It would show that it costs 25.74 per cent more to do intrastate freight instead of 23.27 per cent more, as shown upon Division D of Table 6.

Q. Now, in order that we won't become confused, I will ask you again, all of those relative percentages shown on Table 6 to which you are now referring, have only reference to the direct train movements?

A. Only to the direct train movements.

Q. Or to the items which we have designated as 10 to 27?

A. Yes, sir.

Q. Have you any reasons in your mind which you can give why the computation to which we have been referring should be based upon Division A of Table 6 rather than upon Table 5?

A. Yes, sir. Division A of Table 6 shows the way the freight was actually handled, and the expenses of a through and local train must necessarily be based upon the absolute fact of the handling and not on how the freight should be handled; therefore in determining the cost of a through and local train, the absolute handlings, according to the record

mentioned, must be the basis of computation and how they should have been handled. When, however, you come to the computation of the cost between interstate and intrastate, you then apply the local train cost to the way that the freight was entitled to its movement on a through or a local train.

Q. Can you give any facts which in your judgment would tend to show how this discrepancy could appear upon the records of the Company?

A. Yes, sir. It has been testified here, and of course it is a well-known fact, that trains are often filled up with freight of the other character; that is, if there is a heavy shipment of through freight and more than the through freight can haul and the local freight is running light that day those cars would be put on the local run; if, on the other hand, the through train happens to be a little light in its loading and they have a lot of cars coming from some point which we would class as local (that is, intermediate in the division) they will frequently stop the through train and take them on and bring them on to their destination; and it is those facts that go to make up the cost of through and local trains, and they are reflected by Division A of Table 6.

Q. That refers particularly to whether the freight moved upon a through or local train. Now, with regard to the discrepancy in ton-miles—which means a discrepancy in the weights, I presume,—what have you to say about that?

A. The discrepancy in ton-miles would necessarily arise from the fact that the data which is given is on the conductor's estimate of the weight of his train, and, as we all know, those men are not particularly competent and an error might readily occur there; also in the fact that I have used the length of the train-run as the basis of the train-mile computation on Table No. 6, which, as I stated before, would not be strictly accurate.

Mr. BUTLER: And the same weight as at the initial point?

WITNESS: Yes, sir.

Q. Then, if I understand you right, your judgment is that, from the general methods of transacting business and the assumption which you were compelled to indulge in with reference to Division A of Table 6, the discrepancy in weights found between Table 5 and Table 6 might arise entirely naturally?

A. Yes, sir.

Q. Now, have you made any other test in this matter for the purpose of showing whether or not this same discrepancy extends throughout the business of the year?

A. Yes, sir.

Q. If you will, explain that very slowly, Mr. Hillman.

A. On those tables "A,S, and MS-5" the Northern Pacific show for the year ended June 30, 1907, for Minnesota, a total mileage of 1,596,186,389; of which 123,505,203 ton-miles moved on branch lines. This is shown in Division B of Table 6, (these figures I am quoting,) which leaves 1,472,681,186 ton-miles as the main-line portion of the traffic. I am assured by the Northern Pacific that while these tonnages do not agree with total tonnage which they have reported to the State of Minnesota, yet the division between main line and branches as represented here is the proper proportion and that this statement reflects in its true proportions the business between the main line and the branches in the state of Minnesota This tonnage on the main line amounts to 1,472,681,186. Referring to Table No 6, Division A, you will note that the through net ton-miles amount to 260,992,720, the local ton-miles amount to 44,581,091. the sum of these two being 305,843,811, which is the business for two months. Dividing now the business for the year main line into the total for these two months main line as taken off from the conductors' sheets gives us the factor of practically 20.7 per cent plus. By reference to the report of the Northern Pacific Railway Company to the State on page 61-A, for the year

ended June 30, 1907, you can note that the total ton-miles in the state are 1,229,128,795; and that is supposed to be the record which is taken directly from the way-bills which are the basis of the cards upon which that computation was based and are also the basis of the agents' abstracts and other papers which I examined in making up Table No. 5. You will note, then, that the total tonnage for the two months of April and October (the same months that we had examined in Division A of Table No. 6) the total shown on Table 5 is 254,855,860 ton-miles. If we will now divide the 1,229,128,795 ton-miles as shown as the year's business for the same series of papers upon which Table 5 is based into these two months, we obtain the same percentage of 20.7 per cent plus; which test I considered sufficient to base the authority for the use of Division A of Table 6 in the computation.

Q. This matter that you are now speaking of, of the report of the Northern Pacific to the State of Minnesota, has nothing whatever to say to the amount of taxes paid or anything of that sort, has it?

A. No, sir.

Q. This would make no difference, then; it is a question of statistical information?

A. Statistical information; it affects nothing on their returns for taxation whatever.

Q. And your computation is for the purpose of ascertaining as to which set of statistics is the most reliable for the computation as to cost which you are making?

A. I felt, of course, that there being a discrepancy in those tables it required some test before I could use them and I therefore made the test.

Q. This test that you are now speaking of simply shows that the same error or discrepancy runs through the year?

A. The same discrepancy runs through the year; and if the increased tonnage is a proper factor for the division between

main line and branches, as I have been told, it certainly would reflect the division between through trains and local trains when it has been carefully worked up.

Q. Well, in itself this last computation which you have made shows nothing except that the same discrepancy apparently continues throughout the year?

A. Yes, sir.

Q. And of itself does not determine as to whether the basis should be Table 5 or Division A of Table 6, Table 5 increasing the cost of the intrastate business some $38,000?

A. No, sir, this computation does not show that, it is merely a test to satisfy myself that in making the computation on Division A of Table 6 I was practically correct in my assumption.

Q. At the risk of repetition I will call your attention to the other divisions of Table 6. Division B you will please explain.

A. Division B is for the purpose of determining the ton-mile cost upon the branch-line roads. For that purpose we have used the ton-miles furnished us by the Northern Pacific Railway for the year 1906-7, taken from the statement "A.S.M.S-5". The totals show the ton-miles in Minnesota of 1,596,186,389. It shows main-line tonnage of 1,472,681,186 ton-miles. It shows branch-line mileage of 123,505,203 ton-miles.

Q. Those amounts were taken, you say, from these tables which were marked—

A. "A.S. & M.S-5", by the Northern Pacific.

Mr. BUTLER: Are you not wrong as to the lettering of those tables? Is it not "A.S. & M.A-5"?

WITNESS: Yes, A.S. & M.A-5,—I beg your pardon. I was quoting from memory.

Mr. BUTLER: Auditor's Supplies and Mechanical Accounts is what I understand that indicates. It has been misused once before this morning; I don't know whether constantly or not.

WITNESS: I was quoting from memory on that and I guess I got the wrong lettering.

Q. Were the tables which you have described for the entire year in your possession?

A. No, sir; they were in my possession for the two months of April and October 1907.

Q. How did you get the total for the year?

A. I asked Mr. Johnson for them, the assistant comptroller of the Northern Pacific Railway; and instead of copying those we called them to one another across the table in his office.

Q. You and Mr. Johnson?

A. Yes, sir; I took them down from his calling. I did not look at the table to verify that fact that Mr. Johnson gave me the correct figures; I have not the slightest doubt that they were correct.

Q. The second line of Division B shows the total operating expenses, I believe?

A. Yes, sir; and shows total operating expenses for train movement accounts 10 to 27, and these are taken from the Northern Pacific records as shown on tables 1 and 2.

Q. And are also carried into the total items on Table 4, are they not?

A. Yes, sir.

Q. Mr. BUTLER: Is that on the basis of Mr. Hillman's division, or on the Northern Pacific's division, between freight and passenger?

WITNESS: On the basis of the Northern Pacific division, as those accounts 10 to 27 are directly allocated to freight and passenger, and the Northern Pacific figures have been accepted in each of the cases through and appear the same on each of the six divisions of Table No. 4.

Mr. O'BRIEN: I understand there is no dispute on these items.

Mr. William G. JOHNSON: That is all right.

Mr. O'BRIEN: We have always understood that there was no dispute as to the division between freight and passenger on these items. The object has been upon our part to accept them and that seems to be the fact.

The MASTER: That is, as to what are passenger and what are freight items, you mean, in this division 10 to 27?

Mr. O'BRIEN: The items numbered 10 to 27 are divided by everybody upon the same basis, and so the Northern Pacific has assigned the same amount of each item to freight and passenger, respectively, as Mr. Hillman has.

Attorney General YOUNG: In other words, he has accepted their allocation.

Mr. O'BRIEN: The total is accepted and the allocation by the Northern Pacific is accepted.

WITNESS: This shows a total cost for the train items of $2,219,735.61; a total cost for main-line operations of $1,955,189.99; for branch-line movements—and here we take the branch-line movements on Table No. 2 which are outside of the state because we were compelled to take our tonnages in the same way—and this gives us $264,545.62.

Q. Is there any dispute between yourself and the Northern Pacific records with reference to that total amount for branch lines, $264,545.62?

A. I do not suppose so as that was taken from the copy of their records.

Q. That amount is found upon Table 1, is it?

A. Tables 1 and 2. As tonnages overlap, of course the expenses must overlap. The branch line divisions touching Minnesota run over the state line. The main lines are strictly confined to the state, as you will notice by the notation at the top of Table 2.

Q. But the amounts charged for services upon the branch lines are shown separately as to each branch line upon tables 1 and 2?

A. Yes, sir.

Q. Those are copies of the Northern Pacific books?

A. Copies of the Northern Pacific books, yes, sir.

Q. And you have simply taken the total of those amounts nd carried it here into Division B of Table 6?

A. Yes, sir. Dividing the above ton-miles in each case into ne cost, it gives us the relative cost of direct movement for the ntire state of Minnesota as .13906 cents; of main line move- ent, .13277 cents; of branch line movement .21420 cents. The ovement of trains upon the branch lines of the Northern Pa- fic is entirely on local trains. If there is a through train in ese divisions it is an exceptional matter, so we can say that the anch lines are operated locally by local trains, and we have ssumed that the cost of a local train is therefore reflected by ne cost per ton mile on a branch line, and it is the extreme mit of the highness of this cost since the tonnages on the anch lines, as has been testified here by the Northern Pacific fficials, is at its minimum on the branch lines in the state of linnesota, and therefore I have assumed that the maximum er ton mile local train movement branch line cost is shown y the figure .21420 cents.

Q. These amounts appearing in Division B as operating xpenses, I ask again, are as I understand it, the totals of the tems 10 to 27?

A. Yes, sir.

Q. Therefore the cost per ton mile appearing in the third ine of Division B is the actual cost per ton-mile as computed y you for the services comprised in items 10 to 27?

A. Yes, sir.

Q. The amounts appearing in the third line of Division B re intended to show actual amounts and are not percentages r percentage relations?

A. No, sir, they are not percentage relations, they are actual mounts. I call your attention, however, to the fact that the

tonnage upon which this division is made is the higher tonnage which we had mentioned.

Q. Yes, I understand that, it is based upon Table 6—

A. Yes, sir.

Q. —upon Division A of Table 6?

A. Based on the A S and M A-5 report, and therefore the word "relative" was put in, because of the fact that I was using those increased tonnages which showed the relation between the tonnages, and if the tonnage was overstated these costs would have to be slightly increased in order to meet the decreased tonnage as reflected in the annual report of 1,229,128,795 tons.

Q. Eliminating the question as to the correctness of the number of ton-miles and assuming the computation is merely based upon Division A of Table 6, Division B shows that for the services or for the expenditures contained in items 10 to 27, inclusive, the cost of operation for all tons is 13.906 cents per ton per mile?

A. No, sir, is .13906 cents per ton per mile.

Q. And for tonnage upon the main line it is .13277 cents?

A. Yes, sir.

Q. And upon branches .21420 cents?

A. Yes, sir.

Q. You have called my attention to the fact that I said the computation contained in Division B was based upon the tonnage as shown in Division A of Table 6. What I should have said was that the computation in Table B was based upon the total tonnage as obtained in the same manner as the tonnage for April and October, 1907, shown in Division A was obtained?

A. I do not know the basis of the Northern Pacific method of computing tables A S and M A-5, but from the test I made I should say that they were computed upon the same basis.

Q. What I mean is the tonnage obtained as you have de-

scribed from the Tables A S and M A-5 and called off to you by Mr. Johnson.

A. Yes, sir.

Q. Taking up Division C,—

A. That is the determination of costs through and local trains. From division B of this table we find that the total main line ton-miles is 1,472,681,186. By reference to Division A of Table 6, in the fourth column you will note that 14.59 per cent of the main line tonnage was handled on a local train. We therefore take 14.59 per cent of the tonnage as shown above on the main line, which amounts to 214,864,186 and represents the ton movements on local trains on the main line. We deduct this latter sum, the local movements from the total movements, and we have a balance which is the movement expressed in ton-miles on the through trains on the main line, which is 1,257,817,000 ton-miles. We find from Division B of Table 6 that the cost of the train movement on the main line was $1,955,189.99. We then assume that the highest local-train ton-mile cost as shown upon the branches and in Division B of this table was the cost of the amount of traffic which moved on a local train on the main line. We therefore multiply the 214,-864,186 ton-miles by .21420 cents, which gives us a result of the cost of local train movement on the main line of $460,-239.08, which we deduct from the total cost of train movement of all characters on the main line and gives us a cost of through trains on the main line of $1,494,950.91. If now we divide the ton-miles which moved on a through train as shown above in this same division of 1,257,817,000 ton-miles into the cost, we have a ton-mile cost on through trains of .1189 cents. If we now divide this latter result of .1189 cents into the cost of the local train as shown in Division B of this table and use it in this division of the table, which is .2142 cents, we get a relation of 1.80. In other words, that local-train work costs 80 per cent more than through-train work per ton-mile.

Q. As I understand it, if in making this computation you used the percentage of tonnage upon through and local trains shown in Table 5 instead of deducting 214,864,186 tons as local freight, or 14.59 per cent of the total, you would have been compelled to have deducted a larger amount?

A. Yes, sir, amounting to a little over 19 per cent.

Q. So that instead of deducting 14.59 per cent as local tons, you would have deducted something more than 19 per cent of local tons?

A. Yes, sir.

Q. And the final result shown on Division C would have been that local business cost 190 per cent of through business instead of 180 per cent, as shown on Division C?

A. Yes, sir.

Q. And that is still referring exclusively to items 10 to 27?

A. Yes, sir I notice that you express that correctly, that it costs 190 per cent of the through business, but I don't want your question to be misunderstood that it cost 190 per cent more. I want to be sure that we are not misunderstood in that point; it cost 90 per cent more, but it cost 190 per cent of the through business.

Mr. DURMENT: Well, that is 90 per cent more per ton per mile, isn't it?

WITNESS: Yes, sir

Mr. DURMENT: Not of the through business, but per ton per mile.

WITNESS: Yes, per ton per mile.

Q. We will now pass to Division D, Table 6.

A. Division D in Table 6 shows the determination of the inter and intra cost. Table No. 5 shows that 17,037,901 ton-miles of intrastate freight were entitled to move on a through train and therefore moved at par or 1. We multiply this by par and carry the result over to the right—17,037,901. We find from reference to the same table that 20,749,273 ton-miles

of intrastate freight were entitled to move on a local train, and we have multiplied this ton-mileage by 180, being the cost per ton-mile of local train movement as compared with through train movement, which gives us a result, carried over to the right, of 37,348,691.40. Adding now the total tonnage to the amounts which we obtained by multiplying the local tonnage by 180 and the through tonnage by 1—in other words, producing the average cost per ton-mile of intra freight, we divide the totals of these two columns, the total ton-miles and the ton-miles, reduced to through and local movements, one into the other, and we find that the average cost per ton-mile of all intra freight was 1.4393. We handle the inter ton-miles in the same way, 171,597,953 ton-miles of inter, being on a through train and being multiplied by 1 and 45,470,933 ton-miles being on a local train and multiplied by 180 and dividing in the same manner as the intra, it gives us an inter cost of all business of 1.1676. We now divide the 1.1676 inter average cost into the 1.4393 intra average cost, and obtain a result of 1.2327 as the relative cost of doing inter and intra in the state of Minnesota, or that intra-train work cost 23.27 per cent more than inter-train work.

Q. And when you speak of train work you are referring to items 10 to 27?

A. Yes, sir.

Q. If the relative cost of 1 to 190, as you describe, had been carried into Division D, what would have been the result?

A. The result would have been 1.2574, or 25.74 per cent more to do intra business than inter business train work items.

Q. Per ton-mile?

A. No, for the train work items, not per ton-mile.

Q. Well, don't you mean per ton-mile for train work items?

A. Yes, sir, per ton-mile for train work items. I had for the moment confused that with the next step.

Q. Table No. 7 consists of a division of the entire freight

expenses between inter and intrastate freight?

A. Yes, sir.

Q. The relative cost determined by Table 6 applies to items 10 to 27, inclusive, upon Table 7?

A. Yes, sir; a division is made upon the basis of the 23.27.

Q. Take for instance item 11 upon Table 7, freight conductors, and explain how the total of that item is divided between inter and intra according to the conclusions arrived at in Table 6, and just go through the entire divisions in that item, and that will probably be a sufficient explanation of the method of dividing each item 10 to 27 on Table 7.

A. Having established the ton-mile train movement value of 23.27 per cent increased cost of doing intrastate business over interstate business, we multiply the number of intrastate ton-miles which we have on Table 5, (37,787,174) by 1.2327; we then multiply the number of interstate ton-miles as shown upon Table No. 5 (217,068,886) by 1. We then find the percentage of these two items and find that the inter is represented by a percentage of 82.334 and intrastate by 17.666. Therefore that total of expenses No. 11, Freight Conductors, $135,146.67, as shown by item 11 of Table No. 7, 17.666 per cent, is charged to intrastate expenses, amounting to $23,875.01, the balance being, of course, the complementary percentage and being $111,271.66 inter.

Q. And each of the items 10 to 27 is divided upon the same percentage?

A. Yes, sir.

Q. I now ask you to explain the division upon table 7 of item 2, station agents, clerks and laborers; and before I ask you to do that I will ask you this: each of the amounts appearing in the first column of Table 7 under the heading "A, Freight," is the total amount of that item assigned to freight upon Table 4?

A. Table 4, column No. 5.

Mr. BUTLER: That is "Hillman-2," as I understand it.

WITNESS: Yes, sir.

Q. And is the amount assigned for such item in your computation in double-column No. 5?

A. Yes, sir.

Q. Now, if you will go on and describe the method in which item 2, station agents, clerks and laborers, $445,296.98, has been divided.

A. By reference to page 59 of the annual report of the Northern Pacific Railway Company to the State of Minnesota for the year ending June 30, 1907, we note that of this account, station agents, clerks and laborers, $105,725.06 was for agents' labor. By referring to our Table No. 4, column 5, we note that 11.094 per cent of this account (station agents, clerks and laborers) was passenger, leaving 88.906 per cent as freight. Taking that percentage of the above sum of agents' work, we have $93,996 chargeable to freight account as station agents' labor. From Mr. Gray's testimony in the preliminary hearing in this case we accept the statement that the clerical effort in less than carload lots is equal to the clerical effort in carload lots notwithstanding the fact of the great disparity existing between the tonnages of these two classes of freight. Following this basis we would then divide one-half of the above $93,996 (or $46,998) on the relation of the carloads inter and intra as shown upon Table No. 5, the other half on the relation of less than carloads inter and intra as shown upon Table No. 5. We find the percentage of the carloads inter is 78.058 per cent and of the less than carloads 60.579 per cent. We therefore divide the above agents' effort on these bases and we obtain a result of $65,157.09 chargeable to interstate and $28,838.91 chargeable to intrastate.

The balance of the station expenses, freight, depend almost in their entirety upon the handlings of the freight at the different stations. This question of the handling has often been re-

ferred to in this case and in other similar cases that I deem it of sufficient importance to go into the question of the handlings. While taking off the tonnages as expressed in Table No. 5, I had at the same time the men go over these agents' abstracts and mark the handlings for all less than carload freight, as where the railroad warehousemen handle a carload freight is an exception and not a rule. From that we found that 57.37 per cent of the total handlings in Minnesota were interstate freight and 42.63 per cent were intrastate freight. Now, let me explain that in making this handling each shipment of freight was treated according to the way it would naturally be handled. If a shipment originated at St. Paul and traveled out into the Dakotas we assumed that it was loaded on a car at St. Paul and we also assumed that it was loaded on a car which was loaded to be handled locally on the division in Dakota and that therefore that shipment of freight passing out into the Dakotas had but one handling in the State of Minnesota. Should this shipment have been picked up at a point between St. Paul and Staples, for instance, we would have counted one handling when it was picked up at the initial point, we would have assumed that it was transferred at Staples and loaded into a car which went through into the Dakotas and that therefore it had an unloading and a loading at Staples, which gave it three handlings in the state of Minnesota. The weight of the shipment was then multiplied by 3 and carried out into the interstate column. An interstate freight originating at St. Paul and destined to Staples would have but two handlings. If it went beyond Staples, it would still have but two handlings, provided it did not go out on to a branch. We assumed in the case of the intrastate as well as the interstate that where we started from a terminal point, such as Minnesota Transfer, Minneapolis or St. Paul, that a local car would be loaded for the division over which it was going and that therefore it would not be necessary to unload it and reload it at the divisional

point; but wherever the shipment originated between points, it would have to have a loading at the initial point and a loading and unloading at the next divisional point, and where it went on to a branch it would still have to have a further loading and unloading, and in some cases, in the intrastate shipments, the shipment would have as high as eight handlings. I have been careful in this, as in other accounts, to see that the interstate received no injustice whatever in these handlings. The fact is I think I have given them the benefit of any doubt which might occur; I have intended to, at least. We have therefore divided the balance of this account, station agents, clerks and laborers, on the above percentages of 57.37 per cent inter and 42.63 per cent intra which division when added to the totals above mentioned of agents' work, give us the divisions as shown upon line No. 1 of Table 7, viz., $276,694.47 inter and $168,602.51 intra.

Mr. BUTLER: Can you give the relation of ton-mile cost for handling at that point?

WITNESS: No, I did not divide them. I will make that division if you desire.

Mr. O'BRIEN: We will give you those divisions for the total of all these items before we get through.

Mr. BUTLER: For each one separately?

Mr. O'BRIEN: No, for the totals.

Mr. BUTLER: I will ask him for each one separately.

Recess until 2 P. M.

AFTERNOON SESSION.

Q. Mr. Hillman, will you take up each item of Table 7 in succession and explain the basis used for its division between interstate and intrastate freight?

A. The next account is numbered 3 and is station supplies. This account I have divided upon the percentage as shown in the previous account, No. 2 station agents, clerks and laborers,

as the supplies would necessarily follow the same basis of division as the labor at a station.

The next account is No. 4, station furniture. This I have again divided upon the same percentage as account No. 2, and for the same reasons as expressed in No. 3.

The next account is switchmen and watchmen. In Mr. Gray's testimony in the preliminary hearing in this case he gave the ratio of 7 to 1 as the loading of cars between full carloads and less than carloads. We have therefore taken the interstate tons in less than carloads as shown on Table 5. viz., 72,668 tons, and multiplied it by 7; to this we have added the tons of the carloads, 1,054,837. We have done the same with the intrastate less than carloads, multiplying the 44,074 tons by 7 and adding to this result the 286,681 tons shown as carried in carloads intrastate. From these two results we deduce the percentage of 72.42 interstate and 27.58 intrastate, which shows the relative switching value of inter and intrastate, and upon these percentages are based the division shown on Table No. 7 for this account, $287,653.11 inter and $109,548.09 intra. I would further add that the switching is based on tons and not on ton-miles and therefore the tons have been used as the factor in this case and not ton-miles.

Q. In your last answer you referred to the testimony given by Mr. Gray upon the "preliminary hearing." You mean the testimony given by Mr. Gray, Comptroller of the Northern Pacific, before the Railroad & Warehouse Commission when the merchandise rates were being considered and subsequently embodied in an affidavit filed by the Complainants upon the application for a preliminary injunction in this case?

A. I suppose that that is the paper as my recollection of the affidavit is that it had on the outside the title of the present case.

Q. When you refer to his testimony you mean the testimony appearing in the affidavit a copy of which was furnished you?

A. Yes, sir.

The next item is numbered 6 and is switching. On Table No. 4 this item appears in the expenses, but for the reasons mentioned in the testimony heretofore the amount of this expense has been left out of this computation, for the reason that the total expense was deducted from the gross switching earnings leaving the net switching earnings as the amount to be entered when we come to the computation of the earnings. For that reason this expense is not considered in the division between inter and intra although it appeared on Table No. 4; it is purely a freight item.

The next account is numbered 8 and is Telegraph Expenses. By reference to our prior discussion of this account, we have treated $43,365.06 as an item depending upon the train movement, while the balance of $69,099.70 was an item that depended upon other factors than the train movement. Therefore this $43,365.06, the train movement item, is divided upon the basis of the items 10 to 27, the train movement items, which assigns 17.666 per cent to the intrastate and the balance to the interstate. The balance of these expenses accrues upon the freight per ton, the ton-mileage movement having a direct reference to the train movement, while the other expenses accrue on the freight per ton and not per ton-mile. We have therefore divided the balance of these expenses between inter and intra on the relation between the two tonnages inter and intra as shown upon Table No. 5, which assigns 77.316 per cent to inter and 22.684 per cent intra; which computations give me the figures on Table 7.

The next item is numbered 9 and is the proportion of the operating expenses of terminals. We find that almost the entire amount, by reference to the Northern Pacific books, is the rental of the Minnesota Transfer property. By reference to the Minnesota Transfer Company's report, which is on file with the State, we find that 45.7 per cent of the expenses of

the Transfer were office labor. This amounts to $52,792.24. We find from the analysis of the Minnesota Transfer shipments forwarded, which was obtained from the sheets which went to make up our Ex. No. 5, that 83.62 per cent of the billing of Minnesota Transfer is interstate. If we then divide the $52,792.24 on this basis, we would have $44,092.08 chargeable to inter and $8,700.16 chargeable to intra. The balance of this expense is divided on the carload basis which assigns 86.21 per cent to inter and 13.79 per cent to intra, which divisions give us the total as shown upon Table No. 7.

The next item is one that we have already discussed and is item No. 10. Items 10 to 27, as has been shown in the testimony, have been divided on the basis of 17.666 per cent to intra and the balance to inter, being the train movement items.

The next account is numbered 29 and is damage to property. This is the damage to property along the right-of-way and is not dependent on the number of tons moved but accrues on the freight as it is moved or on the ton-mileage basis. Therefore it has been divided on the ton-mileage basis in this case, which assigns 14.826 per cent to intrastate and the balance to interstate.

The next item is numbered 30, stock killed or injured. This is divisible upon the same basis as No. 29 for the same reasons.

The next account is numbered 31, personal injury. This account is divided on the same basis as 29, for the same reasons. I would say here that the personal injury items could be, if necessary, allocated between inter and intra, but they have not been.

Q. What do you mean by that?

A. I mean that a personal injury to a passenger could be allocated if he were an intrastate passenger, or if—I guess I got ahead of my statement there.

Q. If a freight train ran into or injured a person upon the right-of-way upon which there was both inter and intrastate

freight, how could that be allocated?

A. I withdraw this, as I had in mind for the moment the division between inter and intra on the passenger account.

Q. And which would only apply to passengers?

A. Yes.

Q. You still could not divide it as to a person other than a passenger who was injured, either an employe or a stranger?

A. No, sir.

The next account is No. 32, wrecking, and is divided between inter and intra on the same basis as the preceding accounts 29, 30 and 31, for the same reasons.

The next account is numbered 33 and is car mileage balance. This is the net amount paid by the Railway Company for the rental of cars while on its tracks, and is divisible upon the ton mileage basis. We must not lose sight, however, of the fact that less than carload shipments require seven times as much service as the carloads; if, therefore, we multiply the ton-miles less than carload of each class of freight by 7, adding to that the number of carloads ton-miles and take the relation between the sum thus obtained, we have the proper basis for this division, which assigns 81.84 per cent to inter and 18.16 per cent to intra. On this basis the account is divided.

The next account is hire of equipment. This account we have divided upon the same basis as accounts numbered 10 to 27 inclusive, which assigns 82.334 per cent to inter and 17.666 per cent to intra.

The next account is superintendents, and is divided between inter and intra on the basis of the division of all the preceding accounts in this general division of conducting transportation.

Q. What is the percentage there?

A. The percentage in this case is 21.519 per cent to intra and 78.481 per cent to inter.

The next account, No. 38, is divided upon the same percentage as 35.

The next account, No. 39, is divided upon the same percentage as 35.

This completes the general division, conducting transportation, giving $2,802,469.24 to interstate freight and $768,421.14 to intrastate freight.

We now come to the general division, maintenance of equipment. The first account under this heading is numbered 45, and is repairs of freight cars. We again use the factor of ton-miles, correcting the inequality between carloads and less than carloads by multiplying the less than carloads by 7, which brings the same percentage that was used in the division of account No. 33, which assigns 18.16 per cent to intra and 81.84 per cent to inter.

The next account is numbered 46 and is repairs of work-cars. This account is divided upon the percentage as shown by the expenses in the division of accounts numbered 56 to 72 inclusive, all included in the next general division, maintenance of road and structures, with the omission of account 69, which is repairs of buildings. Since account No. 69, repairs of buildings, does not enter into work-train service, the work-train is used for the purposes of accounts Nos. 56 to 72, inclusive, and is therefore properly divided upon the basis of those accounts. The percentage in this case gives 83.697 to inter and 16.303 to intra.

The next account is No. 47, repairs of locomotives. We have obtained from the assistant comptroller of the Northern Pacific Railway the percentage of repairs of switch-engines as to the total repairs of freight-engines as being 18.1; we therefore divide this account into two divisions, (1) repairs to switch locomotives, equalling 18.1 per cent of the total, and the balance, repairs to road locomotives. The repairs to switch locomotives is on the basis of the number of tons handled and not on the train miles, we therefore divide it upon the relation of carload tons, which gives us the relation of 77.316 inter and 22.684

intra. The remaining expense, of $256,154.49, is divided upon the total ton-mile basis, which gives the figures shown in column B opposite this item.

The next account is numbered 49, other equipment expenses. This is divided upon the percentages shown by the division of the three prior accounts, viz., 45, 46 and 47 in this general division, for the reason that other equipment expenses, unassigned items, would naturally follow the work which could be assigned.

The same is true of the next two accounts, numbered 50, supervision of equipment, and 51, stationery and printing *B*.

This completes the division of the maintenance of equipment accounts, giving us a total assigned to interstate of $781,624.11 and to intrastate of $170,388.77.

We now come to the next general division, the maintenance of way and structures. The first of the sub-accounts of this general division is numbered 56, and is the removal of snow and ice. Here we again make the distinction between switching movement and the revenue train movement. The switching movement is shown in account No. 47, repairs of locomotives, amounts to 18.1 per cent of the total; and this 18.1 per cent is chargeable upon the basis of tons handled, and the balance is chargeable upon the basis of total ton-miles; which latter basis assigns 14.826 to intra; dividing on this basis gives us the figures which are shown in No. 56.

Mr. BUTLER: What is the division of 56—the percentage?

WITNESS: 18.1 per cent of it is divided on the basis of 22.684 per cent to intra; the balance, 81.9 per cent, is divided on the basis of 14.826 to intra.

The next account is numbered 57, repairs of roadway and track, and is divisible upon the same basis as account No. 56.

The next account is No. 59 and is repairs of cribbing and bulk-heading. I have assigned this expense entirely to inter-

state, as it belongs to the docks at Duluth, which are used for interstate purposes

The next account is numbered 60, repairs of bridges and culverts, and is divisible upon the basis of Nos. 56 and 57. The same is true of the next account, 61, cattle guards, road crossings and track signs; 62, renewals of rails; 63, renewals of ties; 64, renewals of fastenings; and 65, renewals of frogs, switches and miscellaneous track material.

The next item is maintenace of leased lines. This is a small item, and I have divided it upon the basis of the ton-miles, which assigns 14.826 per cent to intra and the balance to inter.

The next item, No. 67, repairs of fences, is divisible upon the same basis as account No. 56.

The next account is numbered 68, repairs of snow-fences and snow-sheds, and is divisible upon the same basis as account No. 56, assigning 16.248 per cent to intra.

The next account is numbered 69 and is repairs of buildings. We treat this account the same as a general expense, as the repairs of buildings are buildings used for all purposes of the road, freight and passenger, shops, general office, and therefore it partakes of the nature of a general expense and not a maintenance-of-road-and-structure expense as far as the division between inter and intrastate goes. This division assigns 20.05 per cent to intra and 79.95 per cent to inter.

Q. Before you go to another item—have you finished with that item?

A. Yes, sir.

Q. You gave the method adopted by you for the division of No. 56, removal of snow and ice?

A. Yes, sir.

A. And that involved the division of the total of that account between the work in the yards and the work upon the road?

A. Yes, sir.

Q. So that there were two percentages used by you in dividing that account. In referring to a great number of the succeeding items you said that they were divided upon the same basis as item 56, and I am not sure whether you made the same division (the first division of the item) that you did in item 56, or whether you meant that you would divide it upon the last percentage.

A. I meant that I divided it upon the percentage which the division of account 56, after I had applied both of the percentages to what I considered the proper amounts, would show; which would be the relation the sums set opposite those accounts in the columns on Table 7 inter and intra bear to the total amount.

Q. And that relation is what?

A. 16.248 intra and 83.752 per cent inter.

Mr. BUTLER: What is the total division of 56?

WITNESS: 83.75 per cent inter and 16.248 per cent intra.

The next item is numbered 70, and is Repairs of water supply. This item has been divided upon the train-movement basis (that is, accounts numbered 10 to 27) which assigns 17.666 per cent to intra and 82.334 per cent to inter.

The next item is repairs of docks, wharves, landings and inclines. This item has been divided upon the carload movement, which assigns 21.94 per cent to intra.

Q. Mr. Hillman, that can't be right.

A. It is carload-movement tons.

Q. Well, your percentage isn't right there; $18,000 is more than 21 per cent of $45,000.

A. You are right in that, Mr. O'Brien. In the dictation of this I have dictated it wrongly. If you will wait a moment until I refer to the book here,—Account No. 71 is divided on the basis of the carloads handled out of Duluth docks, which has been taken off in the making up of accounts as shown upon Table No. 5, and shows 40 per cent of the handling over the

docks intrastate and 60 per cent inter. The other was an erroneous dictation.

Mr. BUTLER: For what month did you take those figures?

WITNESS: For the same months as we had under discussion, April and October, 1907.

Mr. BUTLER: And did you correct the error in classification as between state and interstate, as the Company had kept it?

WITNESS: No, sir.

The next item is numbered 72, repairs of telegraph. This we have divided upon the basis of the train-movement items 10 to 27, inclusive, which assigns 17.666 per cent to intra and the balance to inter.

Q. Mr. Hillman, what effect, as to the correct division of item 71, has the fact that the error as to the classification of state and interstate was not corrected in the preparation of Table 7?

A. It has no effect on it, practically, as, when we come to the division of these expenses, we have taken into account all of the tonnage which moved on the non-corrected conditions. When I filed statement 3-L, showing the reduction, I also reduced my expenses proportionately, and this account will be reduced proportionately, as it should be, when that matter comes under investigation.

Mr. DURMENT: As I understand it, you have carried through your computations in these tables in Ex.3-M without making that correction for the classification, and have obtained your Table 16 of that Ex. 3-M without having corrected the classification; then when you make Ex. 3-L you have corrected all the items where you had failed to take note of this difference in classification in your Ex. L, including this item and every other item where it wasn't taken into account?

WITNESS: Yes, sir, they are all corrected by the proportionate reduction of the operating expenses with the proportionate reduction of the earnings.

Mr. BUTLER: I wish you would explain that a little more fully; I didn't quite follow it.

Q. In preparing the tables in Ex. 3-M, the final result being embodied in Table 16, you carried through the improper classification of freight found in the original Northern Pacific report?

A. No, sir; a portion only of the error embodied in the original Northern Pacific report was carried forward, as the original Northern Pacific report reported as intrastate every piece of freight having an intrastate movement although it may have gone forward on an interstate way-bill at an interstate rate; when that correction was made by the Northern Pacific taking up that error, they went one step further and excerpted from the intrastate not only that freight which moved on an interstate way-bill and at interstate rates but that portion of the freight which could be determined had originated outside of the state or was destined to a point outside the state even though that freight moved upon an intrastate way-bill at an intrastate rate, and it is that second portion of the error which is included in this exhibit of which Table No. 7 is a part.

Q. That is, where the freight moved upon a Northern Pacific intrastate way-bill and under what you claim and consider to be the same conditions surrounding intrastate freight, you have included it as intrastate freight in the tables shown in Ex. 3-M?

A. Yes, sir.

Q. For the purpose of arriving at the actual cost of transacting each kind of business?

A. Yes, sir, for the purpose of arriving at the cost of freight carried at intrastate rates and under intrastate conditions.

Q. That is, for the purpose of classifying the freight with reference to its cost rather than with reference to its character as state or interstate, you have included in these tables the interstate freight which moved on intrastate billings in the state of Minnesota upon the Northern Pacific road?

A. Yes, sir; as I stated before, that the fact of my deriving my basis of divisions from the agents' abstracts whereon the tonnages were shown necessitated my taking this class of business as an intrastate matter and that this would give me the correct operating per cent of intrastate business and could then be applied to any amount small or great, which might be carried on the Northern Pacific Railway for that year.

Q. Now, when you had completed your tables you ascertained that you had found or classed 14.83 per cent of the total tonnage in Minnesota as intrastate, while Mr. Johnson in his Ex. 54 stated that 12.33 per cent of the total tonnage was the true intrastate tonnage?

A. That is right.

Q. If you had correctly classified this freight as to cost, therefore, all you had to do in order to arrive at your cost upon the basis of Mr. Johnson's Ex. 54 as to the total tonnage was to apply the same ratio of cost to the reduced tonnage?

A. To the reduced earnings, yes, sir.

Q. And that you have done in Ex. 3-L?

A. Yes, sir.

Q. So that, without recasting each of these tables, you have, by that process, eliminated in Ex. 3-L the error wherever it occurs in the tables contained in Ex. 3-M?

A. Yes, sir.

Q. Now, if you will go on.

A. The next account is No. 73 repairs of shop-tools and machinery. This account is divided on the percentage as shown in accounts 45, 46 and 47 under maintenance of equipment, which gives the percentage of 81.278 per cent inter and 18.722 intra. The reason for this is that the shop-tools are used almost exclusively for the accounts shown, 45, 46, 47, which are repairs of cars and repairs of locomotives.

The next account is numbered 74, stationery and printing. This account is divided upon the basis of all the preceding

accounts in this general division, with exception of account No. 73, which applies to maintenance of equipment accounts and not to the maintenance of road and structure account.

Mr. BUTLER: What are the numbers of those preceding ones?

WITNESS: From 56 to 72 inclusive, with the exception of 69. This account closes the general division of maintenance of road and structures and assigns $928,518.02 to interstate and $198,356.58 to intra.

The next general division is traffic expenses. Here, I will say, as I did in discussion of Table No. 4, that in the Northern Pacific accounts the traffic expenses are, for this year, a part of the general expenses. .In order that we may compare them with subsequent years where this distinction has been made by the new classification, I have taken these first three accounts of the Northern Pacific road under the general expenses and made a traffic expense department of them. The first account is No. 80 and is traffic department expenses. This has been divided on the ton-mile basis, which assigns 14.826 per cent to intra.

The next column, No. 81, is outside agencies. This is almost entirely interstate. I had no basis of division, and I have arbitrarily assigned 10 per cent of that to intrastate.

The next account is No. 82, advertising. I assumed that the advertising which would be necessary to be done in the freight account would be an intrastate matter and have assigned the entire expense (it is a very small one) to intrastate.

Q. Will you explain why you have in your judgment assigned only 10 per cent of item 81 to state business and all of 82 to state business?

A. Well, I know of no method of dividing the business of outside agencies. As I said in my testimony it is almost exclusively interstate.

Q. What do you mean by outside agencies?

A. I mean those agencies which are maintained outside of the regular agents along the line of the right-of-way, up-town offices, Louisville, Cincinnati, Pittsburg, Buffalo, Philadelphia, New York agencies.

Q. Are you referring to agents in the state of Minnesota? May some of those agents be in the state of Minnesota?

A. There may be a very few of them in the state of Minnesota.

Q. And you have assigned 10 per cent?

A. Yes, sir. And in my notes I simply say. "To avoid doing an injustice to the Railway Company's contentions I have allowed an arbitrary of ten per cent on this account."

Q. State whether or not, in your judgment, that is a liberal allowance.

A. Very liberal.

Q. Now, as to the next item, why is that all assigned to state business?

A. Because the advertising which we would have on the freight account is very small, and would, to my mind, be made up principally of the sales of unclaimed articles, and, as such would, be a state matter,—unclaimed freight.

Q. That completes that subdivision?

A. That completes the general division of traffic expenses and assigns $55,023.84 to interstate and $8,124.95 to intrastate.

We now come to the division of general office expenses, and I have divided these entirely upon the basis of all preceding accounts from 2 to 82 inclusive.

Q. The percentage being—

A. The percentage being 20.05 per cent. Each of the items (I will read them) 83, salaries and expenses of general officers; 84, salaries of clerks; 85, general office expenses; 86, legal expenses; 87, rents of buildings, tracks, yards and terminals; 88, insurance; 92, stationery and printing (D and E); 94, New York office; and 95, miscellaneous, have each been divided upon

this percentage, and the total result is shown in the total of this general division $148,333.96 to inter and $37,199.45 to intra.

This completes the division of operating expenses, freight, between inter and intra; and of the total expense of $5,898,460.06 assigns $4,715,969.17 to inter and $1,182,490.89 to intra.

Q. Mr. Hillman, have you made certain computations analyzing the divisions between state and interstate business appearing upon Table 7 for the purpose of ascertaining what the results would be on different bases?

A. Yes, sir, I have taken the items numbered 10 to 27 and treated them in each case as having been definitely determined by the division indicated on Table No. 6, which assigns for those items $357,619.86 to intrastate. I have then taken the balance of the expense items in column A, that is, omitting 10 to 27 in column A of Table 7, and those expenses, which amount to $3,874,115.72, I have divided on three separate bases. First, allowing all the expenses outside of the train expenses to accrue to inter and intra on the basis of the net tons, as shown in the first two columns of Table No. 5. On that basis the assignment of expenses to intrastate would be $1,236,424.27, whereas Table No. 7 shows $1,182,490.89. On the gross earnings basis, I have still allowed the items 10 to 27 to remain as definitely determined by Table No. 6; and the balance, as in the prior account, of $3,874,115.72 I have divided on the basis of gross earnings. The result of this method assigns $1,126,166.94 to intrastate as against $1,182,490.89 on Table No. 7. The third method which I have computed still leaves $357,619.86 as determined by Table 6 and dividing the balance of the expenses on the basis of the ton-miles, which gives us a result of $931,996.25 intrastate expenses. I made this computation at your request.

Adjourned until Tuesday, May 25, at 10 A. M.

FEDERAL BUILDING, St. Paul, Minn., Thursday, May 27, 1909, the hearing was resumed at 10 o'clock A. M.

CONWAY W. HILLMAN,

recalled on behalf of Defendants, testified:

By Mr. O'BRIEN:

Q. At the adjournment Monday evening we had completed Table 7, upon which appears the division between the cost of inter and intrastate freight. I now call your attention to Table 8 and ask you to explain that table.

A. Table 8 is establishing the freight earnings corresponding with the expenses which have been distributed in Tables 4 and 7. In this table we run across a difficulty in the fact that there are no earnings set up for the intrastate freight as considered in expense-table No. 7. You will remember that the orignal reports of the Northern Pacific to the State contained the error of the intrastate considered according to its haul and not according to its billing. It was therefore necessary for me to set up the earnings which correspond to expense-table 7, and that is the object of Table No. 8. Where these earnings had been corrected by the Northern Pacific in Mr. Johnson's exhibit 54, a large amount of tons and ton-miles of freight upon which the expense in Table 7 accrued had been excerpted from that, which prevented me from taking the figures furnished by them on the revised basis; I therefore, as I say, set them up here. From the statement of the Northern Pacific road furnished me the Northern Pacific Railway's straight way-billing amounted to $1,704,717.07. This is the amount of straight way-billing which was taken into consideration by me in the division of expenses.

Q. Well, now, before we go any further, what I understand from your answer is that the error as to the exact amount of intrastate freight, that we have spoken of so often since you

have gone on the stand, appears in Table 8 as well as in Table 7?

A. Yes, sir.

Q. It runs all through these tables 3-M, doesn't it?

A. It does.

Q. That is what I understood, that it runs all through these tables, so that it is not necessary to mention it as to each table. Now, explain the separate items on Table 8.

A. I have already mentioned the first item, which is Northern Pacific straight way-billing, and so reported by the Northern Pacific road and accepted by me.

The MASTER: Reported to the State or reported to you?

WITNESS: Reported to me, sir, in response to a request to them for that information.

Q. The straight way-billing and interline way-billing, matters of that sort, were not subdivided in the report to the Commission?

A. No, sir.

Q. Was this amount which you have designated as straight way-billing made in writing?

A. Yes, sir.

Q. This report was to you and you have the communication?

A. Yes, sir,—for reference if the Company desire; I don't think it will be necessary. It is dated Office of the Auditor of Freight Receipts, December 5, 1908.

The next item is the interline way-billing. From the report which I have just mentioned, the amount of interline way-billing, as reported, amounted to $1,037,498.16. The basic sheets from which Table No. 5 is made up show that the ton-miles upon which this accrued taking the months of April and October, as we have done, amounted to 18,248,064; dividing that into $1,037,498.16, we obtain 5.69 cents, which we designate as a relative average receipt from interline way-billing.

The basic figures from which Table No. 5 is made shows, on Northern Pacific direct way-billing, 28,781,121 ton miles; we therefore divide these ton-miles into the cost above mentioned of $1,704,717.07 and obtain a relative receipt of 5.92 cents as against 5.69 cents for the intrastate or an increase of four per cent on the average relative earning of straight Northern Pacific way-billing as against interline. I will ask that that four per cent be borne in mind for a moment. Now, of the 37,787,174 ton-miles intra, as shown on Table No. 5, last column, 34,309,763 ton-miles were carried on Northern Pacific straight way-billing and interline way-billing. Of this amount of 34,309,763 ton-miles, 28,781,129 ton-miles were carried on straight Northern Pacific way-billing; which gives us 19.21 per cent of the ton-miles considered carried as interline way-billing, and you will recollect that there is a difference of four per cent in the receipts between the average interline and the average straight way-billing; making this correction, we find that the percentage then of earnings, one to the other, is reduced to 18.47 per cent. If we now take 18.47 per cent of the gross earnings, as shown above, of $1,704,717.07, we obtain the result of $314,861.24 as the proper proportion of interline way-billing on the Northern Pacific. There is another receipt which is called the Head of the Lakes movement which is the Chicago, Milwaukee & St. Paul movement under contract by the Northern Pacific with that road, and which shows the movement of 3,154,620 ton-miles intrastate, and 9,506,632 ton-miles interstate. These tonnages are included in Table 5, both inter and intra. We find also that the sum of these two ton-miles amounts to 12,661,252; that the Northern Pacific receipts from this tonnage amounts to $59,691.40, or an average per ton per mile of .47115 cents. As the receipts, whether it is inter or intrastate are the same, we then multiply the 3,154,620 ton-miles by .47115 cents and obtain a result for the months of October and April of $14,874.03. We find from ref-

erence to the tables furnished us by the Northern Pacific that a little over 22 per cent of the tonnage for the year was carried in these representative months; that is, that the representative months of April and October carried a little under one-fourth of the traffic for the year or, to be exact, one divided by 4.46. Multiplying, therefore, our $14,874.03 by 4.46, we obtain a result for the Chicago, Milwaukee & St. Paul traffic for the year, of $66,338.17 intrastate. By reference to the basic sheets from which Table 5 is summarized, we have a total overhead movement (that is, where the Northern Pacific is the bridge) of 8,850,779 ton-miles, of which 400,480 ton-miles are intrastate, or 4.53 per cent. On the report which I have mentioned of the traffic for the year furnished me by the Northern Pacific Railway Company, the "middle line," as they call it, freight passing over the Northern Pacific road amounted to $137,983.69; 4.53 per cent of that being intra, gives us $6,243.76 as the intrastate portion of overhead. The sum of these three items gives me $387,443.17 as the amount of interline way-billing, including the overhead, which figure appears in the second line of Table No. 8.

Q. By overhead do you mean where traffic originates on one road and passes to the Northern Pacific and from the Northern Pacific to another road?

A. Yes, sir.

Q. Proceed.

A. On the report furnished by the Northern Pacific for the intrastate which I have mentioned, the gross amount of the earnings intrastate was $2,880,198.92, as appears in the third item of Table 8. By reference to the sum of the two preceding figures you will see that I have only taken $2,092,160.24 of this amount. The Northern Pacific shows a refund of overcharges of $22,914.72. As there is no record extant that would show this proportion (that is, on what account the $22,000 was refunded) I have therefore assumed 72.64 per

cent of the refund to the shippers as the proper amount to be placed against my earnings, being the same proportion of the refund as the gross earnings reported by the Northern Pacific bear to the gross earnings taken up by me, which gives me the $16,645.25 appearing on Table No. 8. Deducting this from the $2,092,160.24 in the line above gives me for the direct freight earnings intrastate $2,075,514.99.

Q. From the amount of revenue or earnings there should be deducted certain overcharges refunded and the amount of such overcharges were claimed to be $22,914.72; is that right?

A. Yes, sir.

Q. But that was based upon earnings of $2,880,198.92?

A. Yes, sir.

Q. Then when those earnings were corrected down to the point of $2,092,160.24, you made a corresponding reduction in the amount of refund?

A. Yes, sir.

Q. Therefore you credit only $16,645.25?

A. Debited to earnings.

Q. Well, you deducted it from the revenue?

A. Yes, sir.

Q. Now, if you will go on.

A. The total switching, as shown on page 35 of the Northern Pacific report to the State for the year ending June 30, 1907, shows $225,343.40. This is, as we have mentioned before, the net switching revenue. We divide this on the basis of carloads, as shown on Table 5, tons handled, first column, which shows 27.967 per cent as being intrastate. Taking this proportion of the $225,343.40 we have $63,021.79 as the intrastate proportion of the switching earnings. The total storage and demurrage shown by the Northern Pacific on page 35 of their report to the State amounted to $21,560.12. We allow the intrastate the ton-mile proportion of this storage and demurrage, amounting to 14.83 per cent, as shown by Table No.

5, which gives intrastate earnings on account of storage and demurrage of $3,196.50. I will say that with reference to this latter item I feel quite liberal in the allowance to interstate.

Q. What do you mean by that?

A. I mean that, in my opinion, if I had any way, or if I had gone to the back records and traced the storage and demurrage, a larger proportion of this earning than I have assigned to the intrastate would be shown to be an intrastate earning.

Q. Why do you think so?

A. For the reason that the demurrage and the storage on the intrastate would have two chances to one as against interstate, having two terminal movements in the state. The sum of these items mentioned gives a total intrastate earning of $2,141,733.28. Passing to Division B, the total freight earnings, as shown on page 35 of the Northern Pacific report, amount to $10,800,394.36. Deducting from that the intra earnings, as above, we have the balance equal to the total inter earnings for the state of $8,658,661.08.

Q. Those total earnings as shown upon Table 8 are carried forward into Table 16 of Ex. 3-M?

A. Yes, sir.

Q. But are corrected, as you have explained, to conform the earnings as computed by Mr. Johnson in his Ex. 54 by the computation which you have made in Ex. 3-L?

A. Yes, sir.

Q. I now call your attention to Table 9. As I understand, Division A of Table 9 is intended to be a statement of the relative cost of carrying state and interstate freight.

A. Yes, sir, and is practically a conclusion in itself. It is not used in computations subsequent to that, it is a conclusion, and while it has no effect on the final result yet those points have come up from time to time in the testimony and I thought it well to put those in as conclusions, as they stand

there, being what might be called a conclusive or final table.

Q. Will you explain it?

A. The object here is to determine the relative expenses of conducting the different classes of business, inter and intra, compared with themselves and compared with the total business in Minnesota. We find from Table No. 5 that the inter ton-miles are 217,068,886, and from Table 7 that the expenses are $4,715,969.17. Dividing the ton-miles into the expenses, it gives us a relative cost of 2.17000 cents. If you will note, the typewriter has pointed these things wrongly. I intended to correct them but forgot it. The pointing of those figures is correctly shown in the reading matter right below there. The intrastate ton-miles, taken from Table 5, amount to 37,787,174; the intrastate expense taken from Table 7, amounts to $1,182,490.89; giving a relative ton-mile cost of 3.12292 cents. The total ton-miles shown by Table 5, amount to 254,856,060; the total expenses, taken from Table No. 7, amount to $5,898,460.06, which gives a relative expense of all business of 2.31443 cents.

Mr. BUTLER: Per ton per mile?

WITNESS: Yes, sir, per ton per mile. You must remember, however, that we are dealing, in order to obtain this relative percentage, with the tonnage for two months and dividing it into the total expenses for the year; so when I say that it gives the relative cost I do not mean that the cost is two cents or three cents and the fraction that I mentioned.

Mr. BUTLER: Well I thought that you couldn't be finding that was cost.

WITNESS: No, sir, it is a relative cost.

Mr. BUTLER: Well, it is not cents or mills at all, is it?

WITNESS: Oh, yes, sir. You can call it a relative cost unit, but when you divide the 200,000,000 ton-miles into $4,715,000, it does give you the cent as a unit, and therefore is stated as cents. But if you recollect the tonnage is expressed for only

two months while the expenses are for the full twelve months and, therefore, of course, while the relation would hold, the actual cost per ton per mile would be relatively less.

Q. Considering April and October as typical months, you have found the total tonnage for those months, and, applying that to the cost for the entire year you have arrived at what you call the relative cost between state and interstate business?

A. Yes, sir.

Q. But, for the purpose of finding the actual cost per ton per mile, the tonnage for the entire year would have to be divided into the expenses for the entire year?

A. Yes, sir.

Q. As you have only used as a divisor the tonnage for two months, you obtain for each class of business an excessive rate per ton per mile, but the relation between them is the same if April and October are typical months?

A. Yes, sir; it would only be necessary to take the rate for the entire business, the entire tonnage for the year, divided into the expenses for the year, treat that as 100 and apply the percentages which I have derived in the next line, and you could get the cost per ton per mile actually for the business transacted on the Northern Pacific.

The MASTER: Which results just the same as though you would multiply the divisor and dividend by the same number?

WITNESS: Yes, sir.

Q. Now, will you go on.

A. We then divide the relative cost per ton per mile found in the total, viz., 2.31443 cents into the cost of 3.12292 cents, found for intrastate, and obtain a result of 1.3493; which means that it costs 34.93 per cent more to do intrastate business than it does the total business conducted in the state. I am referring to freight expenses now entirely. The same

method, viz., dividing the relative cost of inter freight per ton per mile, 2.17000, by 2.31443, gives us a result of 93.76 per cent, or it costs 6.24 per cent less to do intrastate business than the total business in the state of Minnesota,—of course, per ton per mile understood in each case. Now, if we will divide the intrastate expense relation of 3.12292 by the interstate expense relation of 2.17000, we obtain a result of 1.4391, or it costs 43.91 per cent more to conduct intrastate business per ton mile in Minnesota than interstate business.

Q. Now, the actual cost of transacting the intrastate freight business of the Northern Pacific in Minnesota, as you claim, is shown by the other tables preceding this one in Ex. 3-M?

A. Yes, sir.

Q. That is, you have taken the actual tonnage, determined in the manner you have described, and the actual expenses, divided in the manner you have described, and have stated them in the preceding tables?

A. Yes, sir.

Q. This division A of Table 9 is given solely for the purpose of showing what the relation of cost between state and interstate freight business is in Minnesota if your preceding calculations are correct?

A. Yes, sir.

Q. And the conclusion to be drawn from your tables is that, for the same ton-mile efficiency, it costs 43.91 per cent more to transact intrastate business than interstate business?

A. Yes, sir, all expenses included.

Q. As against the statements of witnesses for the Complainant in this case, based upon their judgment that it costs from three to six or seven times as much?

A. Yes, sir.

Q. What is Division B of Table 9?

A. Division B is intended to show the operating percent-

ages of the different classes of freight business. The intrastate freight earnings, taken from Table No. 8, are $2,141,733.28; the intrastate freight expenses, taken from Table No. 7, are $1,182,490.89; the intrastate freight net earnings are, therefore, $959,242.39. The intrastate freight operating percentage—that is, the relation of the operating expenses to earnings—is 55.21 per cent; the interstate freight earnings (Table No. 8) are $8,658,661.08; the interstate freight expenses (Table No. 7) are $4,715,969.17; therefore, the interstate freight net earnings are $3,942,691.91, the interstate freight operating per cent is 54.47. The total freight earnings (Table No. 8) are $10,800,394.36; the total freight expenses (Table No. 7) are $5,898,460.06; therefore, the total freight net earnings are $4,901,934.30, or the freight operating expense total is 54.61 per cent.

Q. That is the last freight exhibit?

A. That is the last freight exhibit until we come to where we treat of the reductions in freight made by the enforcement or proposed enforcement of the rates.

Q. Now, Mr. Hillman, in the course of your examination, have you become in a general way familiar with the rates which were in force upon the Northern Pacific road during the period covered in this exhibit?

A. Yes, sir, in a general way I have become familiar with them.

Q. There was a considerable portion of the interstate freight which I understood you to say was carried at the same rate as state freight.

A. Yes, sir.

Q. That is, shipments of less than carloads received from points east of the state and transferred to the Northern Pacific at the Minnesota Transfer and then carried by the Northern Pacific to interior points in the state were carried by the Northern Pacific at the same rate as state rates?

A. Yes, sir, carried at the same rate and re-way-billed by them.

Q. Or, in other words, the proportion of the through rate received by the Northern Pacific was equal to the local rate in force upon that road?

A. Yes, sir.

Q. That tonnage so carried, although considerable, amounted to but a small per cent of the total tonnage, state and interstate, in the state of Minnesota, did it not?

A. Yes, sir. That is reflected by the difference between my 14.83 per cent and Mr. Johnson's 12.33 per cent.

Q. Aside from that character of freight, what have you to say with regard to the average rates per ton per mile or earnings per ton per mile upon interstate freight and intrastate freight?

A. The average rate per ton per mile of intrastate freight is about 33 per cent higher than the average for the state, and about 45 per cent higher than the average for interstate. I have not here on my papers that division but it could be readily computed.

Mr. BUTLER: In giving your last answer indicating the average per ton per mile rate of earnings, did you take into account the error heretofore referred to so often?

WITNESS: No, sir; it would slightly alter that and raise the interstate rate per ton per mile. If you would transfer a small percentage of the higher rate freight to the interstate column, you would, of course, raise the percentage of receipts of interstate.

Q. Mr. Hillman, you have never made this computation, have you? I understood you to say you have never made this computation.

A. I have not, no. I have not made any computation, or at least, if I have I have thrown it to one side and forgotten it.

Q. I will ask you to make that computation before the next session, because I think you are in error as to the relative earnings. In Ex. 53—Ward, page 3, in the Great Northern case, I find that on all divisions in Minnesota the revenue per ton per mile in Minnesota, local business, is 1.381 cents and on interstate .681 of a cent, so that the average earnings there are somewhat more than twice as much on state business as on interstate business. The number of tons of interstate freight carried in Minnesota upon the Northern Pacific greatly exceeds the number of tons of intrastate freight so carried?

A. Yes, sir.

Q. It is true, is it not, that the average length of haul is greater for interstate freight than intrastate freight?

A. Yes, sir.

Q. So that, notwithstanding the lower rates per ton per mile charged for the carriage of interstate freight, you still find, as shown upon Table 9, that the proportion of the revenue derived from interstate freight absorbed by operating expenses chargeable to that freight is only 54.61 of the revenue.

A. 54.47 for interstate. 54.61 is for all business.

Q While as to intrastate freight, notwithstanding the higher rates earned per ton per mile, because of the conditions making the carriage of that freight more expensive, it absorbs, for operating expenses, 55.21 of the revenue received?

A. Yes, sir. If we would take into account the error which has been so often mentioned the intrastate freight operating per cent would remain exactly as it is, while the interstate freight operating percentage would be slightly increased by the transfer from the intrastate of a freight business which carried with it a slightly higher operating per cent.

Q. Now, when (as you do on Table 16 of Ex. 3-M) you make a further deduction for the effect of the prescribed rates (had they been enforced) you find that the proportion

of revenue derived from intrastate business absorbed by operating expenses would have been 57.631 per cent?

A. Yes, sir.

Q. In Table 9, Division A, you show that it costs 43.91 per cent more to transact intrastate business than interstate business upon the same ton-mile efficiency; does that mean that if you are correct in saying in division B that the cost of carrying interstate freight is 54.47 per cent of the income or revenue, to ascertain the cost, the percentage which the cost of transacting intrastate business bears to the revenue from intrastate business, you should add 43.91 per cent to the cost of doing interstate business?

A. I understand you to mean by that should I add to the 54.47 per cent the 43.91?

Q. Yes, sir.

A. I should say, no, sir; that the earnings of the intrastate business are proportionately larger, enough proportionately larger than the receipts from the interstate freight business to overcome the excess cost of doing intrastate business, so that the operating percentages of the two businesses are almost equal.

Q. I think there has been some confusion in the minds of counsel, and possibly of judges, sitting on these questions, by which it has been assumed that where the cost of one class of service is higher than the cost of another class of service, if the percentage of cost of the lower or cheaper service is ascertained, the cost of the more expensive class can be determined by adding to that percentage another percentage, and I want to ask you, Mr. Hillman, whether or not that method of computation can produce a correct result as long as the basis upon which each revenue is obtained is different.

A. No, sir. That is best illustrated by the fact that it costs 34.93 per cent more to do intra business than all business. The method which has obtained frequently would be to

take the average operating per cent as shown in the last figure on Table 9 (that is, 54.61) and to that arbitrarily add 34.93, making 89.54 per cent as the operating per cent of intrastate freight. Then, that method, of course, if properly applied and if the earnings are equal, should mean that you would take 34.93 per cent of my 54.61 and add to that, not add 34.93 per cent to it. One method is totally erroneous; the other method is erroneous in the fact that it ignores the increased earnings of the intra freight and assumes an average earning for intra equal to the state (interstate) and increases the operating expense by the amount which it shows over and above the total business for the state.

Q. Go on.

A. I would say that in several cases that I have undertaken, especially that of Kentucky vs. The Louisville and Nashville and other roads in that state, this matter was handled in the method that I have first mentioned; that is, to the operating percentage in the state was added the extra cost to do the state business and simply that percentage (which was taken at 25 per cent) was added to the operating percentage (of about 71 per cent), making 96 per cent as the claimed operating per cent of intrastate. I don't think this is now claimed anywhere by any road, though at times 25 per cent of the operating per cent is added and the earnings ignored.

Q. You said it was "handled" in that way; handled by whom do you mean?

A. By the Louisville and Nashville road in their answer to the Railroad Commission's complaint.

Q. I now call your attention to Table No. 10 and ask you to explain it.

A. Table No. 10 is taken from the Northern Pacific Railway Company's books, and will be found, if I recall correctly, to coincide with Mr. Johnson's Ex. 63 wherever these points

touch. This is taken from their books directly and shows the number of passengers in Minnesota, inter and intra; the passengers one mile in Minnesota, inter and intra; the passenger earnings in Minnesota, inter and intra; the total passengers in Minnesota; the total passenger miles in Minnesota; and the total earnings in Minnesota. It shows in the second line the average haul, and in the third line of each of the years the average receipts per passenger per mile. This Table shows this information for the years ending June 30, 1901, 1902, 1903, 1904, 1905, 1906, 1907 and 1908. You will note that the average receipt per passenger per mile interstate decreases slowly down to the year June 30, 1905, from 2.0752 cents in the year ended June 30, 1901, to 2.070 cents in the year ending June 30, 1905. The intrastate receipts per passenger per mile increase slowly in the same period, being 2.2994 cents per mile in 1901, and 2.4345 cents in 1905. In the year 1906 (always the year ending June 30, in the date mentioned) you note there is a slight decrease in both inter passenger per mile and intra passenger per mile. In the year 1907, for a portion of that year the reduced rates were in effect, and you will note there that the interstate rates increased slightly while the intrastate rates dropped quite sharply. In the year 1908 the two-cent rate was in effect the entire year; the interstate rate dropped from the year 1906, when the two-cent rate was not in effect, from 1.9487 cents to 1.9281 cents, the difference showing, very probably, the effect of the two-cent passenger rate in Minnesota on interstate business. However, the variations above, where there was no such interference (if it may be so called) of the two-cent rate, shows greater variations than between these two years.

Mr. BUTLER: Which two years?

WITNESS: Between the years 1906 and 1908. The intrastate earnings dropped from 2.4061 cents in 1906, when there was no two-cent rate in effect, to 1.9300 cents in 1908, when

the two-cent rate was in effect during the entire year. The average haul of the passengers in the year 1907 was, for the interstate 149.8 miles, and for the intrastate 39.2 miles. I would simply call attention, further, to the number of passengers, the number of passengers one mile and the passenger earning, both inter and intrastate, as expressed in the year 1907, as these will be used subsequently, and also to the average receipts per mile of intrastate passengers as shown in the year 1908, which is 1.9300 cents. These factors are used later.

Q. This Table, like tables 1, 2 and 3 and some others, is simply given here as your subsequent computations are based upon them more or less?

A. Yes, sir.

Mr. BUTLER: There is one expression on the last column of Table 10 and in another place, referring to passegner earnings; I think the item is carried on the books of the Company, of which he says this is a copy, as "passenger revenue" distinguishing between moneys earned from the carriage of persons and moneys earned from the operation of passenger trains.

WITNESS: Yes, sir. I have in subsequent tables designated that as train earnings or tickets and fares, and I believe, as you say, Mr. Butler that the Northern Pacific call that passenger revenue as distinguished from passenger earnings which include not only the revenue but other sources of income, such as mail, express and so on. That is correct, I believe.

Q. Well, what is shown on Table 10? I don't understand.

A. Shown on Table 10 are the tickets and cash fares.

Q. On Table 10 appears no mail or baggage earnings?

A. Nothing but the regular fares paid by the passenger either through the purchase of a ticket or by cash to the conductor.

Recess until 2 P. M.

AFTERNOON SESSION.

Q. I now call your attention to Table 11 of Ex 3-M, which is the division of passenger expenses between inter and intrastate traffic, and corresponds to Table 7 which makes the same division as to freight.

A. Yes, sir.

Q. The first column marked "1, Passenger," contains the total of each item as assigned to the passenger business in column 5 of Table 4?

A. Yes, sir.

Q. In the next two columns, marked "Haulage" and "Non-haulage," those items are divided between such portions of each as pertain to the haulage of trains and those which do not so pertain?

A. Yes, sir, and I would say that that is done for the purpose of keeping right before us these figures which are used in the final division into inter and intra, which is the ultimate object of this table. The haulage and non-haulage are used in that, and I thought best to place them in here for the purpose of having them before us as we went along.

Q. The last two columns or columns 4 and 5, give, respectively, the amounts assigned by you for the interstate traffic and the intrastate traffic?

A. Yes, sir.

Q. Now, what do you mean by a haulage item?

A. I mean an item that has direct reference to either the work on the train or to the work necessitated by the train; the other items being those that would accrue outside of the running of the train.

Q. For the purpose of explaining that, I call your attention to item 8, in which the total of $47,318.48, charged on account of telegraph expenses, is divided first between haulage and non-haulage, $35,811.60 haulage and $11,504.88 non-haulage.

A. That $35,811.60 would be the proportion of the total expense which would accrue from the movement of trains such as telegraph service and the train-dispatching.

Q. How was that ascertained by you?

A. That was ascertained by me as in detail upon the explanation which I made of this account No. 8, telegraph expenses, under "freight." One-half of the telegraph expenses, which amounted to $158,353.33, was assigned to train movement and divided between freight and passenger on the train-mile basis; and the passenger proportion of that half of the $158,353.33 (or $79,176.66) amounted to 45.23 per cent or $35,811.60, and this is the item which is classed as a haulage item.

Q. I now ask you to take the items appearing on Table 11 in order and explain the division of each item between inter and intra passenger business.

A. I would say that we find on the Northern Pacific records a decided scarcity of material for the distribution of passenger expenses. The road has not available any records of the density of traffic upon their through or local trains. They have a sheet which shows estimated earnings per train, but they claim that this is of such a nature, from its method of being made up, that it is of no value, and that the totals of the estimated earnings of these trains are not checked up with the total passenger earnings for the year or month and that they might be out one or even two million dollars, and they declined, on this ground, to have these sheets used in this connection. This lack of record of the haul of passengers on local and through trains, and also of the number of inter and intrastate passengers using each class of train, renders it necessary for me to treat the cost of handling all passengers alike, as far as the train movement or the train service of those passengers go. This does very probably some injustice to the cost of handling intrastate traffic, since we find by comparing the cost of the items 11 to 28, inclusive, (the conditions referring

to train-movement items) on the branch lines with the main lines, that the cost of the branch-line train service per mile is 33.34 cents while that of the main line is 35.52 cents. I, however, as I said, treat through and locals on a par basis, as far as train movement items go, accounts 10 to 28, inclusive.

Q. Are you able to definitely ascertain the train movement cost on the branch and main line as you have given it?

A. Yes sir. As explained in the freight account, the passenger miles, and also the expenses of these items 10 to 28, are kept separately for branches and main line.

Q. But whereas, you were enabled from the sheets which you designated "A. S. M. A. 5" to ascertain the total ton-miles upon the branches, you have not been able to obtain the data showing the passenger miles upon the branches; is that correct?

A. Yes, sir, I have the passenger miles on the branches all right, but we had not the passengers intrastate and interstate moving over the branches. I have the main lines, rendering that, you might say, a useless item in the investigation. It was impossible to bring that factor over and make the use of it that we did in the freight business because we had not the data to go on after we got it over.

Q. If you had the total passenger receipts upon the branches and the total cost upon the branches, why could you not make the same computation with reference to passenger per mile upon the branches that you did per ton of freight?

A. That could be done, but when we got to the main line we were then blocked because we had no method of determining the traffic on the main line inter and intra; no density of traffic on through or local trains, nor no method that I knew of to get it.

Q. If the same condition with reference to passenger travel as to its relative cost applies on the branches as does with regard to freight cost, you would be able to ascertain the maxi-

mum price per passenger per mile, would you not?

A. Yes, sir.

Q. Did you make that computation?

A. No, sir.

Q. But that computation could be made?

A. It could be made, yes, sir.

Q. And that, of course, would have reference only to train movement?

A. Only to the train movement items.

Q. Well, now, if there is no further explanation, if you will go on and take up each item.

A. The first item of expense, account No. 2, is station agents, clerks and laborers. The total of this item is $55,564.54. We have assumed that this expense is divisible upon the number of passengers handled. The Company's records show, on Table 10, 602,350 interstate passengers, and 1,252,364 intrastate passengers or a percentage of 32.48 inter and 67.52 intra. It will probably be claimed, in contraversion of this division, that many of the through passengers are no tax on the local facilities at a station but that they pass over or through without their use. The side records of the Company show that about one-third of the through passengers are no tax on the facilities furnished by stations outside of terminals. On the other hand, it is recognized that the labor attached to the routing and ticketing and handling of a through passenger is much greater than that of a local passenger. As a side-light on this matter of the expense of handling passengers, the item of baggage has frequently been mentioned. Now, if you will refer for a moment to Table 12 you will notice in the fourth line that the extra baggage and storage receipts allocated by the Railroad Company amount in total to $36,179.20. The intrastate proportion of that is only $1,178.41, the interstate proportion is $35,000.79, indicative in the matter of handling of baggage of the large excess of expense attached

to interstate work. We have therefore felt that in this division, allowing the percentage of passengers handled as the dividing factor in this state, we are certainly not doing any injustice to interstate traffic.

Q. I don't find that reference that you give on Table 12.

A. Fourth line, "Extra baggage and storage, Northern Pacific report to the State, 1907, page 35, allocated by the Railway Company, inter $35,000.79, intra, $1,178.41."

Q. State whether or not this allocation of the baggage earnings, in your judgment, indicates anything with reference to the amount of baggage ordinarily carried by persons who are making a short trip.

A. Yes, sir, it indicates that the intrastate passenger, as a rule, carries but very little baggage.

Q. What is your personal experience as to the baggage that is carried by a person traveling a short distance?

A. My personal experience is that when I go a short distance—

Q. I am not speaking of your own experience but of your observation.

A. That the baggage on what we would call through service is very much heavier than that on local service.

Q. Well, how does that question of baggage affect the expense found in item 2 under station agents and employes?

A. It is indicative of the employment of the baggagemasters and the baggagemen who handle that as far as their duties go in station service.

Q. Does this item include all of the passenger stations in the state?

A. No, sir, not the union depot.

Q. The union depot where?

A. At St. Paul.

Q. Or Duluth, I presume?

A. And at Duluth.

Q. How about Minneapolis?

A. Or at Minneapolis; the terminal stations that are operated and paid for under "rentals."

Q. You used the expression a moment ago "side records;" what do you mean by that?

A. I meant by that that on the passenger records of the Northern Pacific road they have, for their own information, on the side of the records, "between two states and between three states," so many passengers carried over as between two states and as between three states, both for the division east of the Missouri river and the division west of the Missouri river. There is just a general reference to that amount, and from that I deduced that one-third of the through passengers did not use local facilities.

Q. By "side records" you mean notations regularly entered upon the records of the Company?

A. Yes, sir.

Q. On the side of the page?

A. Yes, sir, I put it that way. On the side of the page, it is not an extra record.

Q. You were not referring to any secret or outside records.

A. No concealed deadly weapons, no sir.

Q. Will you go on.

A. The next item is "station supplies and expenses." In this account we estimate that one-fourth of the station supplies and expenses are chargeable to the lighting and other expenses of switch-signal and crossing lights, and that the remaining three-fourths is due to the expenses in and about the station, due to the supplies used in and about the station. Following this division we divide one-fourth on the basis of the passenger miles, as the switch signal-lamps, etc. are used for the purpose of guarding passenger mileage and not passenger numbers. This division assigns 35.26 per cent to intra, the other three-fourths we divide on the basis of the number of

passengers handled, which is 67.52 per cent intra (inter).

Q. Upon what information or experience do you base your first division in which you assign 25 per cent to switch-lights and matters of that sort?

A. That is made on the basis of the supplies for switching signals, and so on, which is, under the new classification, kept separately, and therefore that amounted to in the neighborhood of twenty to twenty-five per cent, and I therefore have taken in this year's division that much of the station supplies and expenses as applying to this switching and signal matter.

Q. Go on.

A. The next item is "station furniture." With reference to Table No. 10, the interstate haul is 149.8 miles, the intrastate haul is 39.2 miles; we assume, therefore, that the intrastate passenger uses the furniture, at this ratio, 3.8 times as much as an interstate passenger, and we therefore divided this expense on the basis of 3.8 to intra and 1 to inter.

Mr. BUTLER: That is the basis of the average length of haul of each?

WITNESS: Yes, sir. I would say that that item only amounts to $1,336.08 in total.

Account No. 5 is "switchmen and watchmen." We divide this on the basis of the passenger miles, assigning 35.26 per cent to intra. The next item is No. 8, telegraph expenses. By reference to Table No. 11 it will be noticed that $35,811.60 is a haulage item dependent upon train movement and is therefore divisible upon the passenger mile percentage which assigns 35.26 per cent to intra. The balance of this account, $11,504.88, is a passenger and non-haulage item. This is divided on the basis of the number of passengers carried and assigns 67.52 per cent to intra on the ground that the telegraphing outside of train movements would vary according to the number of passengers carried and not according to their mileage. Here, again, we are giving the interstate the advantage of the

fact that most of the telegraphing would be concerning reservations of berths, information as to through tickets, etc., the ticket agent as a general thing being familiar with his own state business, and it is only when he gets off his own line into the connections east and west that he finds it necessary to communicate with headquarters.

The next account is No. 9, operating expenses and terminals. We divide this on the passenger-mile basis, the terminals being operated for the entire system and for the benefit of the miles which accrue in the state. We here again recognize the fact that a large proportion of the intrastate passengers never see the terminals, but we have considered this as the best factor for its division and have assumed it. It certainly does not do any injustice to the Railway Company's contention in the case.

The next account is "operation of leased lines." This account occurs on the terminal division of the Northern Pacific and we have divided it upon the passenger mileage.

The next item is No. 12, passenger conductors. This we divide on the passenger-miles, since the conductors' duties are such that the requirements of the passenger traveling 149.8 miles (which he does on the average of the interstate) would require his attention for the whole of his mileage and not as an individual, hence we use the factor of passenger miles, the passengers being under care of the conductor not only personally but for their mileage, the number of miles they are on the train.

The next item is account No. 14, passenger brakemen. We divide this on the same basis as the passenger conductors, for the same reason.

Account No. 15, passenger baggagemen,—in spite of the heavy preponderance of inter baggage, as indicated in our discussion of account No. 2, I have assigned the division of this account upon the passenger mile basis.

The next accounts, Nos. 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, and 34, all being dependent upon the haulage (which in turn is dependent upon the passenger miles) are divided upon the same basis as account No. 12, that is, the passenger mileage.

Account No. 35 is superintendence. This is divided on the percentage which all the accounts preceding it in conducting transportation bear one to the other and gives us a percentage in this case of 62.21 per cent inter and 37.79 intra.

Accounts Nos. 38 and 39, other expenses conducting transportation and stationery and printing, are divided upon the same basis as account No. 35. I do not think it is necessary to explain the reason for that as it was very fully set forth in the discussion of the freight accounts, that these accounts depended entirely upon the accounts which had gone before and were therefore entitled to be divided upon the net results of the preceding accounts.

This completes the first division of conducting transportation and gives us the total of $615,361.14 inter and $373,857.04 intra.

We now come to maintenance of equipment accounts. In this division account No. 44, repairs of passenger cars, and account No. 47, repairs of locomotives, are divisible upon a passenger mile basis, which assigns 35.26 per cent to intra. Account No. 45, repairs of work cars, is divisible upon the percentages of inter and intra as shown in the next general division, maintenance of way and structures, which assigns 38.97 per cent to intra, and on this basis the division of account 45 is made. The balance of the account in this general division of maintenance of equipment, which consists of account 49, other equipment expenses; 50, supervision of equipment; and 51, stationery and printing, are divided upon the basis of the accounts preceding them, which assign 35.54 per cent to intra and 64.46 to inter. This finishes the main-

tenance of equipment and assigns $151,926.06 to inter and $83,753.64 to intra.

We now come to the next general division of operating expenses, maintenance of way and structures.

Q. On this table it is marked "maintenance of road and structures;" I suppose that means the same thing?

A. Yes, sir, I would say it means the same thing, and I find sometimes that it is on the accounts; and I suppose because I have used on the road of which I was auditor "road" instead of "way" I insensibly fall into using that term of "road" instead of "way," and I mean exactly the same thing where I have used the two words. I call your attention to the haulage and non-haulage items. Now, the distinction of the haulage and non-haulage items in this division is that the haulage items are that part of the expenses dependent upon the movement of trains as discussed in our analysis of the accounts for division between freight and passenger; that is, the wear of the structures by the train; these portions of the expense items Nos. 57, 60, 61, 62, 63, 64, 65, 68 and 70, are noted here and amount to, as per total, $51,902.22. The unassigned items from 56 to 72, inclusive, (I mean the non-haulage items) amount to $308,216.18, and each of these items are divided according to our treatment in the prior discussion, in column No. 5, on the basis of the net earnings as shown by the expenses already allocated and including account No. 87 in general expenses, not allocated so far. This assigns 38.02 per cent to intra and 61.98 per cent to inter. The other accounts, $51,902.22, are divided upon the basis of the passenger miles, which assigns 35.26 per cent to intra and 64.74 per cent to inter. Item 73, repairs of shop-tools and machinery, is divided upon the basis shown by the accounts 44, 45, and 47 in maintenance of equipment, since it was for this purpose that these shop-tools and machinery were used.

Account No. 74, stationery and printing, is divided upon the

basis of the accounts as shown in the general division between inter and intra from accounts 56 to 72, inclusive, which assigns 38.93 per cent to intra. Here we come again to the use of the factor of net earnings in this column No. 5 of Table 4, and I do not know whether it was made clear in my testimony before or not as to the meaning of the term "net earnings" which I used. The term net earnings would be what was left over after all expenses of operation have been deducted from the receipts. In this case I have deducted only the expenses which had accrued up to the time that I laid aside these expenses for further division. I had also laid aside a percentage to take care of the general expenses so as to excerpt them from the total result, for the reason that they are dependent upon the total of all preceding accounts, and it is on this what might be called reduced gross earnings (if I can use the phrase) that I have made this division, terming them "net earnings." I don't know whether I make myself clear but I will illustrate it if you desire.

Mr. BUTLER: Well, how would you do if there weren't any net earnings for interstate or intrastate?

WITNESS: That would be a very unfortunate state of affairs and is one of the strong points which led me to abandon this method.

Q. Let me ask you: if that proportion is correct when based upon net earnings, it would, for the purpose of ascertaining the relative cost be just as correct if based upon a net loss would it not?

A. Yes, sir.

Q. Let me see if I can follow this, Mr. Hillman. Items 56 to 72, inclusive, in general have been divided by the same method.

A. Yes, sir.

Q. Some of those items contain what you have designated haulage charges?

A. Yes, sir.

Q. And in each case you have inserted under column 2 the amount of any item which you consider a haulage charge?

A. Yes, sir.

Q. And those haulage charges have been divided by you between state and interstate upon what basis?

A. The passenger-mile basis.

Q. Then the remaining portion of the item, or, in the case of such items as contain no hauling charge, the entire item, has been divided upon what you have termed "net earning" basis?

A. Yes, sir.

Q. You say, further, that you have used that term "net earning" in a special sense?

A. Yes, sir.

Q. You do not mean to use the term as it is ordinarily used the net earning of the road, either from freight or passenger, after deducting the entire operating expenses?

A. No, sir, that would be impossible, because as yet I haven't determined all of the operating expenses.

Q. Then what operating expenses have you deducted from the actual earnings for the purpose of arriving at what you have designated net earnings for the special purpose of dividing these particular items of which we are now speaking?

A. All of conducting transportation; all of maintenance of equipment with the exception of account 45; all of maintenance of road and structures shown in column No. 3; nonhaulage items, with the exception of account 73 and 74; all of traffic expense items; and all of account 87, rents of buildings, tracks, yards and terminals in general expense.

Q. I can't understand, Mr. Hillman, how you could have deducted the items which you are engaged in dividing.

A. I would correct that and state all of the items in the maintenance of road and structures shown in the haulage col-

umn, and account No. 87 shown in general expenses. I was in error momentarily in looking at the wrong column.

Q. And what remained after making those deductions, you called "net earnings" for the purpose of dividing the non-haulage items included in items Nos. 56 to 72, inclusive?

A. Yes, sir.

Q. Now, in making those computations, when you had made those deductions, there was a portion of the earnings left which you designated "net earnings?"

A. Yes, sir.

Q. Suppose the result of that computation had been to show a net loss in either or both inter or intrastate business for the purpose of arriving at a factor to base a division which would result in a still greater loss, that net loss would be of exactly as much value as the net profit which you did find, would it not?

A. No, sir.

Q. Well, why not?

A. For the reason that the net loss, should it occur on both sides of the account, would not be equal. Should it occur on only one side of the account and not on the other, we would then be under the necessity, in that system, of transferring some of the expense of these non-haulage items which are confessedly for the purpose of keeping the road up so that it can earn money and were certainly incurred in passenger as well as freight, supposing the loss to accrue in the passenger account, and it would leave us with none of these expenses chargeable to passenger account or the account which loses the money,—which would be manifestly incorrect.

Q. So that, in your judgment, this would be an improper method of arriving at the division of those accounts unless a net revenue could be derived, in the manner indicated by you?

A. Yes, sir, and unless the operating expenses of freight and passenger showed a very close relation one to the other

(you might say a negligible relation one to the other) in their percentages.

Mr. BUTLER: What is that? I don't follow you.

WITNESS: I said that it would be—

Mr. BUTLER: You mean that unless the frieght operating expense bore the same relation to the freight revenue as the passenger operating expense bore to the passenger revenue, then this method would be worthless; is that it?

WITNESS: Would be incorrect, yes, sir.

Q. Won't you explain a little further what you mean by that, Mr. Hillman?

A. I mean that the increase in the operating percentage of for instance the passenger account would reduce the so-called net earnings and would leave a lesser percentage of the net earnings applicable to these undigested expenses and would therefore decrease the portion of the amount which would be chargeable to them and would correspondingly increase the amount which would be chargeable to freight expenses. It can readily be seen that as the inequality in operating expenses would approach the point where they would eat up the entire revenue, supposing such to be the case, the expenses would gradually be chargeable less and less to that account and more and more to the other account, though the volume of traffic reflected by the earnings might be just as heavy in one account as the other, and would finally leave us with some undigested expenses which would be chargeable entirely to the account which had the least operating expense, though the accounts themselves are figured for the purpose of keeping up both the traffic in order to make the gross earnings or the revenue for the Company.

Q. Does not that objection apply equally as well whether the computation shows a profit or a deficit?

A. Certainly it does.

Q. Well, that is the question that I originally asked you,

that as a factor for dividing these expenses, the fact as to whether you show a net earning or a net loss does not make any difference; the evil is, that if the passenger and freight rates are not first properly adjusted, you won't get a proper factor for the division, isn't it, in either case?

A. As I understand your question, you have mixed the gross earnings that they got into this question. Am I right in that,—that you are asking for a discussion of the gross earnings basis as well as this one?

Q. No.

A. Then I don't understand the question.

Q. Well, you say that, for the purpose of dividing the portion of the item of maintenance of way and structures which is chargeable to weather-stress, as we have said, you ascertained practically all of the other operating expenses, then ascertained what the net earnings were upon passenger business, state and interstate, upon the basis of deducting only the operating expenses already determined and then proceeding to divide the items referred to in the first part of this question?

A. Yes, sir, using "gross earnings" in that method you have there, (that is, reduced gross earnings.)

Q. Which you have designated in your testimony as "net earnings"—

A. Yes, sir.

Q. —for the purpose of this division?

A. I say that the basis is incorrect.

Q. You have come to the conclusion that that basis is incorrect?

A. Yes, sir.

Q. Because, of necessity, the fact as to whether there are any net earnings and the fact as to whether net earnings may appear in one of the other divisions, will depend upon the respective rates or amounts earned in those divisions; is that so?

A. Yes, sir.

Q. And if, in fact, those rates do not bear the proper relation to each other, that is, that the freight rates are disproportionately high as compared with the passenger rates, or the interstate rates disproportionately low as compared with the intrastate rates, your factor is wrong; is that right?

A. That, of course, would enter into it—the amount of the rates would certainly enter into it. The main factor is the heavy expenses eating up the revenue.

Q. Now, assuming that to be so, what I started to ask you was whether or not the final result of profit or loss in the total has any effect upon the propriety of the factor which you use.

A. Decidedly it has.

Q. Do you mean by that that it would of necessity change the factor?

A. I mean by that that it would destroy the value of the factor, yes, sir; the consideration of it destroyed it so that I abandoned its use.

Q. Well, Mr. Hillman, if it is proper to determine the division of these items upon the net result leaving out of question the proper relation which the rates bear to each other, but if you are to determine this division upon the net result what difference does it make whether the net result is a profit or a loss so far as the propriety of using net result is concerned?

A. If you assume that as the basis it would make no difference at all, but that is the reason that I abandoned this; because it is not the proper factor, for the reasons that you have just stated.

Q. We will come to the abandonment of it and the other plan in a little while; what I desired to get was an answer to that proposition. Before you use the net result you must assume a proper relation between the different rates, as I understand it?

A. Yes, sir.

Q. Now, if that proper relation between the rates, freight and passenger, state and interstate, exists, so that the net result is a proper factor to use for the division of these items, it doesn't make any difference upon the question of using that factor whether the net result is a profit or the net result is a loss?

A. No, sir.

Q. But because the use of the net result depends upon the proper relation between the different rates, you have come to the conclusion that it should not be based upon that factor?

A. Yes, sir.

Q. You made, therefore, the computation which you made last week, showing what would be the result of using gross earnings?

A. Yes, sir.

Q. Is not exactly the same evil present in the use of gross earnings? wouldn't that also bring a disproportionate allowance if the rates were disproportionate as to each other?

A. It certainly would serve to an extent to render that an unreliable factor.

Q. And isn't it also true that whether you are considering net earnings or gross earnings if the freight earnings, for instance, are excessive as compared with the passenger rate, the result must be that you charge a larger proportion of these items to freight; isn't that true?

A. That is true.

Q. And if the interstate rates are excessive, as compared with intrastate rates, that in your division an excessive proportion of these expenses is charged to interstate rates?

A. That is true.

Q. And isn't therefore the result, whether you compute this on net earnings or gross earnings, or upon profit or loss,

that to an extent that evil that you have spoken of equalizes itself?

A. No, because in this case you introduce not only the factor of the inequality of rates but you introduce the other factor of the heavier expenses of handling.

Q. Now, these items can be compared, can they not, to the rental which would be paid upon a bridge used for both state and interstate business where the structure was kept up by the owner?

A. Yes, sir.

Q. That is, that without reference to the number of trains which would cross the bridge or the number of tons of different kinds of freight that would cross the bridge, a certain fixed definite rental would be paid and an annual rental of a fixed amount would be paid?

A. No, sir, because the rental should be based upon the traffic which passes over the bridge even though the rates might be different or inequitable.

Q. They represent amounts that are necessarily paid out to maintain a structure or a road, without reference to the use that the road is put to, do they not?

A. Yes, sir.

Q. And the actual operation of trains upon the road has nothing to say to the expenditure because of the portion of those items included under non-haulage charge?

A. That is right.

Q. Following the method adopted in double-column No. 4 of Table 4, that portion of those items would be divided upon the gross-earning basis?

A. Yes, sir.

Q. And following the method adopted in double-column No. 5 of Table 4, those items would be divided upon the net-earnings basis, using the term "net earnings" as you have described it?

A. Yes, sir.

Q. Now if you will go on with items 73 and 74.

A. Item 73, repairs of shop-tools and machinery, is divided on the percentage which we obtained from the totals of the maintenance of equipment account, Nos. 44, 45 and 47, as the shop-tools and machinery, their principal use, was for the work contained in those items. It shows a percentage of 35.54 to intra and 64.46 to inter. The stationery and printing in account No. 74 is divided upon the basis of the relation of all the accounts preceding it and shows the percentage of 38.93 intra and 61.07 inter.

Adjourned until May 28th, at 10 A. M.

FEDERAL BUILDING, St. Paul, Minn., Friday, May 28, 1909, the hearing was resumed at 10 o'clock A.M.

CONWAY W. HILLMAN,
recalled on behalf of Defendants, testified:

By Mr. O'BRIEN:

Q. When we adjourned last night we were considering the items composing the maintenance of road and structures. Now, referring again to items 56 to 72, inclusive, in that subdivision of Table 11, will you state what the total amount of the non-haulage charges in those items is.

A. $308,216.18.

Q. It was to that amount that you applied the factor based upon what you have classed as "net earnings" as described yesterday?

A. Yes, sir.

Q. And with the use of that factor what proportion of the $308,216.18 is assigned to inter and intrastate traffic?

A. 38.02 per cent to intra, 61.98 per cent to inter.

Q. If you divide that same amount upon the gross-earnings

basis, what factor or percentage would be used?

A. 37.66 per cent to intra.

Q. And would make a difference of how much in the amount awarded to the intrastate traffic?

A. $1,048.83.

Q. If you divide that sum upon passenger miles?

A. You would divide it on the basis of 35.26 per cent, intra.

Q. And how much would the amount awarded to intrastate traffic vary from what appears upon Table 11 under that computation?

A. $6,992.18.

Q. Have you divided that sum upon any other basis?

A. No, sir. Those are the only three factors that we really could apply to that for the division between intra and inter.

Q. That completes that subdivision?

A. With the statement that the general expenses are divided on a prorata, as shown by the preceding divisions, between inter and intra.

Q. And gives you a total for interstate business of $224,292.05, and for intrastate business of $142,863.48?

A. Yes, sir. I beg your pardon, I understood you to mean the total of Table 11, that that completed Table 11; I understand now that you meant completed maintenance of road and structures.

Q. Yes, that subdivision.

A. Yes, sir.

Mr. DURMENT: What change does that make in your former answer, if any?

WITNESS: It would not make any, as I mentioned general expenses there.

Q. Now, you may proceed to the next subdivision.

A. The next subdivisions, "traffic expenses" and "general expenses," are treated as one and divided upon the basis of the preceding items, which gives us total for traffic expenses of

$49,611.32 inter and $30,043.35 intra, and for general expenses, $67,180.19 inter and $40,682.61 intra.

Q. When you say you divide the traffic expenses and the general expenses by the preceding items you mean the percent derived from the total of the preceding items as divided by you?

A. Yes, sir.

Mr. BUTLER: What are the percentages?

WITNESS: 62.3 for inter and 37.7 for intra. I would say in that respect that the traffic expenses are incurred much more heavily for interstate traffic than intrastate traffic; but I have allowed in this case that they fall in with the other general expenses and bear the same proportion. This is a concession to the interstate expenses.

Q. Please state exactly how you arrived at this percentage that you gave in your last answer.

A. We would take all the expenses which have been allocated and divided up to this point—

The MASTER: Between state and interstate?

WITNESS: Between state and interstate. The total is shown in column No. 1 of Table 11, and divide that into each of the allocations; which the sum of each of the allocations would show on inter and intra up to the end of total maintenance of road and structures, and then take the percentage which that shows of each one. This gives a total of operating expenses, as per Table 11, for inter of $1,108,370.76, and intra of $671.200.12.

Q. Mr. Hillman, the total expense chargeable to passenger service, according to table 11, is $1,779,570.88, is it?

A. Yes, sir.

Q. If that should be divided between inter and intrastate traffic upon the respective passenger miles in such traffic, what would be the result?

A. $627,476.73, if you take all the expenses of the passenger

department as accruing upon a passenger mile basis.

Mr. BUTLER: What would be the percentages of division?

WITNESS: 35.26.

Q. In Table 11 you have assigned to intra $671,200.12?

A. Yes, sir.

Q. Each of those figures, the total of column 5 in Table 11, and this amount which you have now given us, is based upon the assumption that passenger expenses are as shown in Table No. 11, column 1?

A. Yes, sir.

Q. Now, turn to Table 4. Double-column 1 of that table gives the total passenger expenses as carried upon the books of the Northern Pacific road at $2,172,857.44?

A. Yes, sir.

Q. Please divide that sum between state and interstate business upon the passenger-mile basis.

A. The result is $766,149.53 on the basis of the passenger miles. That is the assignment of the passenger expenses to intrastate on the basis of the passenger miles.

Q. Taking the total passenger expenses as shown upon column No. 1 of Table 4, Northern Pacific division?

A. Yes, sir.

Q. Table 12, will you explain that table?

A. Table No. 12 shows the passenger earnings of the Northern Pacific Railway Company for the year ending June 30, 1907, assigned to inter and intrastate, also with column showing total for the state.

Q. From what is this taken?

A. Taken from the Northern Pacific Railway Company's records, and part of the information taken from page 35 of the annual report to the State.

Q. The annual report for what year?

A. For the year ending June 30,1907.

Q. Are the divisions which appear upon Table 12 between

inter and intrastate earnings made by the Company or by you?

A. All the items mentioned have been divided by the Railway Company into inter and intra; I have re-assigned some of the items, which I will mention in detail as I go over them. The tickets and cash fares, which the Northern Pacific call their passenger revenue, are taken from Table 10, which is taken from the Northern Pacific Railway Company's books and shows $1,788,299 inter and $1,080,088.83 intra; total, $2,868,387.83. There is in this division a very small portion amounting to the neighborhood of $24,800 which, under the method we have so frequently spoken of here of the Northern Pacific dividing their earnings on the haul rather than the tickets themselves, was included in the intra business, when they claim it should have been the interstate business. The passenger mileage which goes with this small amount of about $25,000 is an unknown quantity from the records of the Company as they stand at present and therefore the entire amount has been included by me as an intrastate earning.

The next item is the mail. The total amount as reported to the state, on page 35 of the annual report of the road for the year ending June 30, 1907, is $208,567.56,all of which is entered by the Railway Company as an intrastate earning. I have taken that earning of $208,567.56, and I have divided that between inter and intra on the ratio of the percentages of operating expenses. The operating expenses accruing on this earning, and a portion of those operating expenses being assigned to interstate and a part to intrastate, it is but just, in my mind that the division between inter and intra should be on the basis of expenses and not assign the entire earning of $208,567.56 to intrastate, though I will say that these mail-routes ended almost entirely at the state line and they were paid for by the Government on that basis.

Q. When you speak about the percentage of expenses you mean the total expenses as divided by you and shown upon Table 11?

A. Yes, sir. The exact percentage is shown on the statement itself, 62.283 per cent to inter and 37.717 per cent to intra.

The express earnings, as shown by the Northern Pacific report to the State on page 35, year ending June 30, 1907, are allocated by the Railway Company. As the Railway Company owns the express company and is in a position to obtain this information from the express company's books, I have accepted their allocation in this regard, although I have in this charged a larger percentage of the expenses of hauling this express to intrastate than should be, had I taken this matter into consideration.

The next item is extra baggage and storage, taken from the same page of the same report, and is allocated by the Railway Company.

Mr. BUTLER: On what basis,—do you know?

WITNESS: I do not know. I suppose, of course, it is upon the baggage itself as shown by the check it bears. I have accepted their allocation and assigned $35,000.79 to interstate and $1,178.41 to intrastate.

The sleeping-car earnings, taken from the same page of the same report and marked by the Northern Pacific Railway Company "can not apportion," (that is, between state and interstate) I have divided on the basis of the expenses, for the same reason that I did the mail earnings, and assigning the same percentages of this total earning of $55,895.92 to inter and intra viz., 62.283 per cent inter and 37.717 per cent intra.

Special trains, same page of the same report, are allocated by the Railway Company and I have accepted their allocation.

The dining and observation cars, same page of the same report, marked by the Railway Company "can not apportion," I have divided on the expense basis, the same as the mail, for the same reasons. The total earning is $16,171.72 and the interstate receives $10,072.23, the intrastate $6,099.49.

Lunch-stands, same report, same page, are marked by the Northern Pacific Railway Company "can not apportion," I have assigned all to intrastate.

The newspaper sales, marked by the Northern Pacific "Can not apportion," same page, same report, I have marked as intrastate.

This gives me the total earnings, passenger, as shown upon Table 12, of $3,463,127.29; inter $2,192,178.57 and intra $1,270,948.72.

Q. Now will you please take up Table 13 and describe that Table?

A. Table 13 shows the percentage of operation of conducting passenger business, both at the present rate and at the reduced rate; I mean at the rate in vogue in the year ending June 30, 1907, and the present rate.

Mr. BUTLER: Well, the two-cent fare was in effect two months of 1907?

WITNESS: For only two months. In the year ending June 30, 1907, the two-cent passenger fare was in effect two months out of the twelve of that year. In the year ending June 30, 1908, the two-cent passenger rate was in effect the entire year. Table 13 takes both of these conditions into account.

Q. Explain Division A of Table 13.

A. Division A shows in the first line the passenger miles, taken from Table No. 10, as the Northern Pacific record; shows interstate 90,266,304 passenger miles; intrastate 49,158,057 passenger miles; total passenger miles 139,424,361. The passenger revenue (or, as I have it, earnings, fares and tickets; *"revenue"* it is called by the Northern Pacific officials) from Table 10 shows inter earnings of $1,788,299, intra earnings of $1,080,088.83, total earnings of $2,868,387.83. The average receipt per passenger per mile is, inter 1.9811 cents, intra 2.1972 cents; total business 2.0573 cents. The relative receipts compared with the total (that is, counting the total

as par) the intra receipts are 106.8 or 6.8 per cent more passenger receipts per passenger per mile for intrastate than the total for the whole state; and the inter shows 98.296, or 1.704 per cent less inter per passenger per mile than the total business in the state. The same figures show, on the next line, that the intrastate receipts per passenger per mile are 10.906 per cent more than the inter passenger receipts per passenger per mile.

Q. Now, Mr. Hillman, could you explain the next division without reading all of these figures into the record?

A. Yes, sir. We take the operating expenses from Table No. 11, and we compare the operating expenses with the direct train receipts and obtain the percentages shown in the seventh line of the table, viz., the operating per cent and the annual train passenger revenue train receipts would be 61.98 per cent inter, 62.14 intra, and for the whole state 62.04 per cent. The cost per passenger per mile is then shown in the next line, the relative percentages of the cost inter and intra to the total, and intra to inter. It is probably only necessary to mention the last percentage; that is, that the relative cost of an intra passenger mile as against an inter passenger mile shows an excess cost of 11.19 per cent. That Table A is rather statistical in its character and corresponds to the Division A of Table No. 9 in the freight business.

The next division, B, shows the total passenger earnings, tickets, fares, mail, express and so on; and we have also reduced that, in the second line of Division B, to the per-passenger-per-mile basis and have noted that the revenue or the railroad tickets and fares yield so much per mile and that the other passenger items yield another amount per mile, the total of lines 3 and 4 making the total of line No. 2. The relative percentage of earnings from all sources as compared with the total earnings for the state are given in the next line, and the operating per cent is then given in the next line.

This shows the Northern Pacific passenger earnings as they existed in the year ending June 30, 1907, which included only two months of the two-cent rate reduction.

Q. Now, in general, Division A of Table 13 is intended to show the relations and percentages based upon the amounts received from passengers for fares?

A. Yes, sir.

Q. And Division B is intended to show practically the same results based upon the total passenger revenue as contained—

A. Total passenger earnings, the Northern Pacific would call that.

Q. Passenger earnings, as contained in Table 12?

A. Yes, sir.

Q. Now, will you explain Division C of Table 13?

A. Division C in Table 13 shows the earnings, costs, percentages, for the year ending June 30, 1907, had the two-cent passenger rate been in effect the entire year.

Q. You have that marked "Under reduced rate shown in 1907 and 1908?"

A. Yes, sir.

Q. Have you simply the reduced rates, or have you taken the actual earnings for the year ending June 30, 1908?

A. I have taken the reduced rate as shown by the year 1907-08 when the two-cent fare was in existence the entire year, and this rate shows a per passenger per mile receipt for intrastate business of 1.9300 cents; I have multiplied the intra passenger miles for the year ending June 30, 1907, by this figure, the average rate per passenger per mile shown while the two-cent rate was in operation the entire year, and have then produced the earning which is shown here of 2.3182 cents.

Q. In Division A of Table 13 it appears that during the year ending June 30, 1907, there were intrastate passengers

carried one mile 49,158,057?

A. Yes, sir.

Q. And the actual revenue received from those passengers for fares during that year averaged 2.1972 cents?

A. Yes, sir.

Q. It appears, however, that in the year ending June 30, 1908, when the reduced rates were in operation, the revenue received per passenger for fare in the state of Minnesota was only 1.9300 cents?

A. Yes, sir; that is shown on Table 10.

Q. That account appears upon Table 10 of Ex. 3-M?

A. Yes, sir.

Q. The miscellaneous passenger receipts you assume to be the same, which amounted, as shown in Division B, to .3882 of a cent per passenger per mile?

A. Yes, sir.

Q. Adding those two together, you find that if the two-cent fare had been in force during the entire year ending June 30, 1907, the receipts for intrastate passengers per mile would have been 2.3182 cents instead of 2.5854 cents, as shown in Division B?

A. Yes, sir.

Q. Now, if you will go on.

A. We then bring the expenses per passenger per mile, which would not be changed by the introduction of the two-cent rate, from Division A of this Table, and this shows an expense of 1.3654 cents for intrastate passengers per mile, which gives a relative operating per cent of 58.89 per cent for intrastate passenger work at the reduced rate.

Q. And how much for inter?

A. The interstate shows 51.69 per cent, and the total for the state shows 54.19 per cent.

Q. In Division B of Table 13, taking the actual earnings during the year ending June 30, 1907, you find that of the

entire receipts to be credited to the passenger business from interstate business 50.56 per cent was absorbed by operating expenses chargeable to interstate passenger business?

A. Yes, sir.

Q. And 52.81 per cent of the intrastate total receipts was absorbed by the expenses chargeable to intra business?

A. Yes, sir.

Q. But on the basis of the reduced earnings, assuming the reduced rate to have been in force during the entire year ending June 30, 1907, you find that the operating expenses chargeable to interstate business would have absorbed 51.69 per cent of the receipts from that business?

A. Yes, sir.

Q. And the operating expenses chargeable to intrastate business would have absorbed 58.89 per cent of the receipts from that business?

A. Yes, sir.

Q. Which of these percentages is carried into your final Table No. 16?

A. 58.89.

Q. The percentages shown in Division C?

A. At the reduced rate, yes, sir.

Q. Table 14.

A. Table 14 is the earnings and operating expenses in the state of Minnesota for the year ending June 30, 1907, divided into inter, intra and showing the total. The passenger earnings are taken from Table No. 12; the freight earnings are taken from Table No. 8. The other earnings (shown in total on page 35 of the annual report to the State for the year ending June 30, 1907,) are not directly traceable to either freight or passenger and therefore require a division. I have divided these expenses between inter and intra on the basis of the expense.

Mr. BUTLER: You mean you divided the earnings?

WITNESS: These earnings between inter and intra on the basis of the expenses which had accrued on each, inter and intra. These receipts from "other earnings" are from telephone and telegraph, rents, tracks, yards, terminals and other rentals. This gives the total earnings as shown upon Table 14, of inter $11,069,000.45, intra $3,482,116.02.

Q. Take the first of those items, the one marked with an X, "other earnings, telegraph, and telephone," I suppose that means, does it?

A. Telephone and telegraph, yes, sir.

Q. Inter $2,483.82, intra $790.52, total $3,274.34?

A. Yes, sir.

Q. Now, on what basis has that item been divided?

A It has been divided between inter and intra on the expenses basis.

Q. Do you mean the total operating expenses?

A. Yes, sir; the total operating expenses shown, inter and intra.

Q. Total operating expenses inter and intra, as you have assigned them?

A. Yes, sir.

Mr. BUTLER: What percentages were used?

Q. That is 62.283, isn't it?

A. No, sir, it would be the combined freight and passenger expenses. I haven't preserved that percentage on the record here. I will figure it if desired.

Q. Just give us that figure.

A. The percentage assigned to intra is 24.143.

Q. And that same percentage is assigned to each of the two succeeding items—

A. Yes, sir.

Q. —"rents, tracks, yards and terminals," and "rents other?"

A. Yes, sir.

Q. Where do you obtain the three items to which I am now referring, the last three items of earnings or receipts on Table 14?

A. Page 35, annual report to the State, year ending June 30, 1907.

Q. Are they apportioned in that report?

A. They are apportioned in that report to the State by the Northern Pacific.

Q. Have you a copy of the report with you?

A. I have.

(Producing and exhibiting report to the Master.)

Mr. BUTLER: Apportioned in the same amount?

WITNESS: They are credited to intrastate business in total.

Q. Now, could a division of the item other earnings, telephone and telegraph, be made upon the expenses incurred in telephoning and telegraphing?

A. I suppose it could on the basis that whatever they could earn from this source would be a rebate or a credit to the charges which had been made to that account, but they would not necessarily accrue according to the expenses incurred.

Q. Have you ever made that computation?

A. No, sir.

Q. I wish you would make that computation on the record and refer to the tables from which you take your figures, and in case hereafter the Master desires to use these tables for any similar purposes, it might be of some assistance. On Table 7, item 8, telegraph expenses chargeable to freight are divided?

A. Showing $89,129.21 inter and $23,335.55 intra. On Table No. 11, account No. 8 shows the telegraph expenses divided as $26,921.21 inter and $20,395.27 intra. The total of these two is $116,100.42 inter and $43,730.82 intra, or a percentage to intra of about 27.36 per cent.

Q. Now, take that percentage of the total item on Table 14, other earnings, telephone and telegraph $3,274.34, and let us know what sum that would assign to intra earnings which on this table has $790.52.

A. That would give an earning of $895.86 to be credited to intra earnings, instead of $790.52 as shown on Table No. 14.

Q. Now, to sum up this item, in the annual report of the Northern Pacific Company for the year 1907, ending June 30th of that year, the entire amount, $3,274.34, appears under "State Earning?"

A. Yes, sir.

Q. And is not subdivided between state and interstate?

A. It appears under Intrastate Earnings.

Q. If that item was divided between state and interstate earnings upon the proportion which the state and interstate expenses chargeable to the maintenance and operation of telephone and telegraph lines as you have made that division, there would be credited to intra earnings the sum of $895.86?

A. Yes, sir.

Q. While upon Table 14, dividing that item upon the division of all of the expenses, you have only given credit to intrastate earnings of $790.52?

A. That is right.

Q. Now, if you will go on and explain the second subdivision of that table.

A. The next subdivision of that shows the expenses applicable to the earnings as shown in the first division of this table. The passenger expenses are taken from Table No. 11, the freight expenses from Table No. 7; the total expenses of inter being $5,824,339.93, of intra $1,853,691.01; the operating percentage being 52.618 per cent inter, 53.260 per cent intra, and 52.766 per cent for the total. I would say that the operating percentages shown here are those on the actual earnings

for the year and not at the reduced rate.

Q. You have just net earnings?

A. Yes, sir, net earnings obtained by the subtraction of the expenses from the operation, showing $5,244,660.52 inter, $1,628,425.01 intra, and total $6,873,085.53.

Q. That amount given as net earning for intrastate business, freight and passenger, does not take into account the reductions which you have been speaking of, nor does it take into account the payment of taxes?

A. No, sir, neither.

Q. We have still to reach the table where all of those deductions are made?

A. Yes, sir.

Q. Now, will you explain Table 15?

A. Table No. 15 shows the application of the reduction percentages to the earnings for the year 1906-1907; for the months of July, August, September, October and one-half of November, neither the class rates nor the commodity rates were in effect. The business in these months originally credited to the intrastate by the Northern Pacific, amount to $1,082,945.22. We will assume that during the month of November, the first half, when the rates were not in effect, this was an average month, and we add to these earnings, therefore, one-eighth for a half month, the earnings in the prior line being for four months, which gives us a total business of four and one-half months of $1,218,313.37. The reduction as per Mr. Johnson's Ex. 63, 8.11 per cent, would have been, on this business, $98,805.22. For the fiscal year, the Northern Pacific Railway credited originally to intrastate business $2,857,284.20; from this we deduct the above four and one-half months, $1,218,313.37, giving us a balance of the intrastate for the seven and one-half months during which the class rates were in effect but the commodity rates were not in effect, of $1,638,970.83. You will note that during these seven and

one-half months upon which this $1,638,970.83 accrued, all the class rates were figured by the Northern Pacific into their earnings at the reduced rate and therefore they are entitled to no reduction on that amount but only the reduction as shown for the four and one-half months wherein the rates were not in effect. Mr. Johnson's Ex. No. 63 shows a loss on commodity rates business of $22,636.70, on a total business of $1,484,850.52, or a loss of 1.524 per cent. Applying this percentage to the above balance of $1,638,970.83, gives a loss through the possible application or the potential application of the commodity rates for that business of $24,977.92, or a total loss for the year on all business originally classed as intrastate of $123,783.14. Now, by reference to Table No. 8, you will note that we have considered in our earnings only 72.64 per cent of the above total business originally shown as intrastate. That, therefore, should stand 72.64 percentage of the total loss of $123,783.14, or $89,916.07, which is the total reduction potential and actual on freight for the year 1906-07.

Passenger business. Table No. 10 shows the passenger fares and tickets for the year 1906-07 at $1,080,088.83. The same table shows 49,158,057 passenger miles intrastate for the same year. Table No. 10 also shows that in the year ending June 30, 1908, during which the two-cent rate was continuously in effect, the average rate per passenger per mile was 1.93. Therefore, if we multiply the 49,158,057 passenger miles by 1.93, it gives us the passenger receipts or the passenger revenue derived by the trains, tickets and fares at the reduced rate, and gives us a receipt for the year ending June 30, 1907, of $948,750.51. Subtracting this from the amount shown on Table No. 10 gives us a reduction in passenger business, had the two-cent rate been in effect, of $131,448.32.

Q. Will you explain Table 16?

A. Table No. 16 shows, first, the total net intrastate revenue from operation in Minnesota which the Northern Pacific

Railway Company would have received in the year ending June 30, 1907, under the prescribed rates, both freight and passenger, if all of the same had been in force during the entire year. Second, it shows the proportion of revenue from other sources which the Minnesota intrastate business would be credited; and, third, it shows the proportion of the total revenue derived above applicable to interstate and dividends. We take the gross earnings as shown on Table No. 8, $2,141,733.28, and from that we make the reduction shown upon Table 15, freight account, of $89,916.07, which leaves a balance of gross earnings, at the reduced figure, of $2,051,817.21. The operating expenses taken from Table No. 7, amount to $1,182,490.89, or a percentage to the reduced earnings of 57.631 per cent. The taxes are four per cent on the gross earnings and are therefore $82,072.69. This gives a balance of net earnings, freight, of $787,253.63, at the reduced rate after paying all operating percentages and taxes.

The next item is passenger, showing gross earnings, taken from Table 12, of $1,270,948.72. The total reduction is shown on Table 15 at $131,338.32, leaving a balance of gross earnings of $1,139,610.40. From this we will take the operating expenses as shown in Table No. 11 of $671,200.12, and which shows an operating percentage of 58.897, and the taxes four per cent on the above earnings $45,584.42, which leaves a net earning, passenger, of $422,825.86; total freight and passenger, net, of $1,210,079.49.

The miscellaneous earnings, taken from Table 13, amount to $69,434.02; taxes four per cent on the above deducted, $2,777.36, leaving net miscellaneous earnings after deducting taxes of $66,656.66.

We find that the net income from investments, taken on the basis of the net earnings, amount to 5.408 per cent of the total.

Mr. BUTLER: I don't understand the last item, Mr. Hillman.

WITNESS: The net income from investments is shown on page 31 of the annual report of the Northern Pacific road to the State for the year ending June 30, 1907, and shows interest on bonds and miscellaneous income of $2,203,597.21. It also shows a deduction from income of $160,469.30, as rent paid for lease of road, leaving a net income from all sources of $2,043,127.91. By reference to the same page of the annual report it will be noted that the income from operation of the road is $30,845,515.53 before any taxes are deducted. If, therefore, we take the percentage found by dividing the total net earnings for the entire line into the total net earnings as shown upon Table No. 16 before the taxes have been deducted therefrom, we will obtain a percentage of 4.56, and this percentage of the total income of $2,043,127.91 should be added to the earnings shown as above in order to obtain the net income applicable to interest and dividends.

Q. Do I understand, then, that the percentage should be changed in the item net income from investment 5.408?

A. Yes, sir, I will have to charge that percentage.

Q. To what?

A. To 4.56. I think that this probably occurred through a reversal of the figures. I had that worked out for me, and in the investigation which I made of another percentage I saw that that was too large and worked it out.

Mr. O'BRIEN: May we change that on the original exhibit?

Mr. BUTLER: Does it change the amount produced?

WITNESS: Yes, sir, it changes the amount to $93,166.64 instead of $107,895.65.

Q. The total, then, should be changed to what?

A. Should be changed to $1,369,902.79.

Recess until 2 P. M.

AFTERNOON SESSION.

By Mr. O'BRIEN:

Q. The results shown upon Table 16 of Ex. 3-M are arrived at by basing your computations upon double-column 5 of Table 4?

A. Yes, sir.

Q. Have you ascertained the results which would be obtained by basing the same or similar computations upon the other double-columns of Table 4?

A. Yes, sir.

Q. Now, in order that it may appear consecutively in the record, I find that in Table 16 you state net earnings from freight $787,253.63; is that correct?

A. That is correct, after the deduction of taxes, yes sir. I have not deducted the taxes from them in this second computation. I can give you the figures shown in Table 16 with the additions of those taxes if you desire.

Q. Well, I desire to have the comparison appear in the record in one place; so state what the net earnings, freight and passenger, would be without the deduction of the taxes in Table 16.

A. $869,326.32 for freight, net.

Q. The same computations based upon double-column 1.

A. Would give us $942,859.18 freight, net earnings.

Q. Now, if you will, go right along with the columns.

A. Column No. 2 wasn't worked. Column No. 3, the Wisconsin method, gives $870,469.91, net freight. Column No. 4 gives $865,027.22, net freight; column No. 6, headed "Peabody, Including Switching," (meaning the division of items not allocated and not related to any particular factor for its division) on the basis of train mileage, switching included, gives $878,097.64 as net freight earnings.

Q. What are the net passenger earnings, without deducting taxes, shown in Table 16?

A. $478,410.28 on Double-column No. 1 of Table 4, Northern Pacific Method, $334,815.39, net intra passenger earning. On double-column No. 3 of Table 4, the Wisconsin method, $476,414.20, net passenger earnings intrastate. Double-column No. 4, Table 4, Hillman gross-earning basis, $487,865.75, net earnings passenger intrastate. No. 6, the train mileage switching method, $462,156.45, net earnings intrastate passenger. The other earnings are then divisible upon a slightly different basis and give the following results: Table No. 16, $69,434.02; double-column No. 1, $71,596.98; double-column 3, Wisconsin method $68,979.62; column No. 4, Hillman gross-earnings basis, $68,795.56; double-column No. 6, train mileage, including switching method, $69,261.46. The proportion of income assignable to each of these divisions is as follows: Table 16, $93,166.64; double-column No. 1, $89,284.69; Wisconsin method, double-column No. 3, $93,370.95; Hillman gross-earning method, double-column No. 4, $94,167.70; train mileage including switching, double-column No. 6, $93,779.57; making a total for Table No. 16 of $1,510,337.26, taxes not deducted. On the Northern Pacific method $1,438,556.24. That is in column No. 1. In column No. 3, Wisconsin method, $1,509,234.68. Column No. 4, gross-earning method, $1,515,856.23. Double-column No. 6, train mile, including switching, $1,503,295.12.

Q. Exhibit 3-L is prepared and computed on the same basis as Table 16 with the exception that the tonnage erroneously included and reported by the Northern Pacific as intrastate tonnage has been deducted?

A. Yes, sir, from both earnings and operating expenses.

Q. And if these same computations were made and applied to Ex. 3-L they would vary the result shown in that table in about the same proportion as they have to vary the result in Table 16?

A. Yes, sir; the variation between the highest and low-

est of the four methods considered in the average (which is shown in Table 4, column No. 7) would be about $8,500.

Q. Well, what I asked you was whether, if these computations were carried into Ex. 3-L, the variations would be shown in that table about the same as you have shown them to be in Table 16.

A. Yes, sir.

CROSS-EXAMINATION

By Mr. BUTLER:

Mr. BUTLER: In order to properly prepare for the cross-examination of Mr. Hillman, we ask permission to ask some questions now to aid us in that, and thereafter we will ask for some postponement of the hearing or of the examination of the witness to enable us to examine these tables and prepare for cross-examination.

Q. Mr. Hillman, I get the impression from what I have seen and heard since you have been on the stand that you have had a pretty big job to make this division; am I right about that?

A. There have been a number of figures necessary to make the computation, yes, sir.

Q. I got the impression that you have spent the best part of a year on the division in the Northern Pacific case alone, giving most of your time to it personally, and employing a large number of skilled accountants to help you.

A. I would hardly like to call them skilled accountants.

Q. Well, skilled bookkeepers.

A. I have had a large amount of clerical help, eight or ten men.

Q. How many months of your own time have you spent in this case?

A. On the Northern Pacific matter?

Q. Yes, if put in the aggregate on this case alone.

A. Six months.

Q. Of your own time?

A. Of my own time.

Q. Of course, distributed, however, over a longer period; but something over a year since you first took it up?

A. Distributed over a year.

Q. And how much time for clerks—days for one man, we will say, or months for one man or years for one man, in the aggregate, is represented in the work which you have submitted to us in your direct examination?

A. In the Northern Pacific case, I should say about two years of clerical work for one man.

Q. And your maximum number employed in that case?

A. The maximum was fifteen.

Q. And the minimum?

A. Six or eight, I forget which it is.

Q. You had from eight to fifteen men employed in the Northern Pacific case, and the average months per man,—how long did you have eight, we will say and how long did you have fifteen?

A. That I couldn't tell.

Q. Is not your estimate of two years for one man rather low? Fifteen men for two months would be two and one-half years for one man. Eight men for three months would be two years for one man. Is not your estimate as to your help, when you state it is the equivalent of one man for two years, too low by a great deal?

A. Yes, possibly it was. I will make a little computation.

Q. Yes, if you will, because I would like to get that with reasonably approximate accuracy.

A. It should be about three and one-half years.

Q. For one assistant, and half a year for yourself?

A. Yes, sir.

Q. That would make four years all together?

A. Yes.

Q. Now, to continue the examination that Mr. O'Brien has given you this afternoon, could you, without serious delay, tell us what the net freight and net passenger intrastate earnings would be if you would just disregard all these tables and all these classifications of accounts and divide the total cost on the gross revenue basis; it would be a very simple matter in division, wouldn't it?

A. Yes, it would be simply percenting it.

Q. Will you do that for us? Of course, that would go in right in connection with Mr. O'Brien's last examination. You have shown what it would be on these various bases of division between freight and passenger as evidenced by Table 4 of your Ex. M, now I would like to know what it would be if you hadn't gone to that trouble at all and just divided it on the gross-earnings basis.

A. On the gross-earnings basis as shown on Table 14 of this exhibit, the computation which you have asked me to make would give a result of $2,027,000.17 operating expenses.

Q. I wanted the net from intrastate freight and the net from interstate passenger; that is, your ultimate, what all this work was for.

A. The net result would be $1,455,115.85 on the basis which you have asked me to compute.

Q. That is the total for freight and passenger?

A. Total for freight and passenger.

Q. Intrastate?

A. Intrastate.

Q. And your total on table 16 is $1,369,902.79; give me the difference between them, will you?

Mr. O'BRIEN: You are including in there all of the miscellaneous expenses, Mr. Butler, aren't you?

Mr. BUTLER: Well, I want to get it to the net; I don't care how it is gotten at.

A. Reduced to the same basis as Table No. 16, it would

give you approximately $1,326,000.

Q. Against what figure on Table 16?

A. $1,370,000.

Q. Even?

A. I am quoting as if the figures were even.

Q. Well, make it exact so we will know what to compare.

A. $1,326,038. That figure is approximate.

Q. Where is that,—on 16?

A. No, that isn't 16; that is the figure you have asked me to quote. It is approximately $1,326,038.

Q. To be compared with what on Table 16?

A. To be compared with $1,369,902.79.

Q. There would be about $40,000 difference in the total net?

A. I beg your pardon, sir; I haven't deducted from your account as yet the taxes. I overlooked that.

Q. Well, I don't care how you get to it.

A. Excuse me a minute. The computation would not, on the basis that you have mentioned, after deducting taxes (which reduce it to the basis of Table 16) about $1,196,000 as against $1,369,902.79.

Q. How much taxes did you deduct?

A. $130,038.

Q. Now, just describe your arithmetical operations, giving the figures, so that we may be able to check you by reading your testimony.

A. I don't know, having answered the question, as it is necessary to go any further into it.

Q. Well may be it isn't, but I would like to have you do it, if you are willing to, Mr. Hillman, so that we may examine to see whether or not your answer is right.

A. I am merely performing a computation for you which your men are perfectly able to perform.

Mr. O'BRIEN: Oh, I think you had better make that computation for him.

Mr. BUTLER: I am not asking him to make a computation, I am asking him to state just what figures he took, whether he divided or multiplied and what the result was.

The MASTER: And where he found them.

Mr. BUTLER: Yes, that is all, and where he got them.

A. Table 14 shows $14,551,116.47 total earnings; intra, in the same table, shows $3,482,116.02. The proportion of intra to the total is 26.4 per cent. From the total operating expenses of $7,718,369.14, shown in the last column of Table No. 1, I have deducted, as stated before, the expense account No. 6, switching, which leaves the net as shown by the Northern Pacific Railway Company's report to the State which has been mentioned of $7,678,030.95; 26.4 per cent of that amounts to $2,027,600.17; deducting this amount found by the application of this percentage to the total operating expenses, we have net for intrastate, $1,455,115.85. We have deducted on account of the decrease in earnings, as shown upon Table 16, a total of freight and passenger of $221,254.39. We deduct this from the total above mentioned of $1,455,115.85 and it gives us a total of $1,233,861.46. To this we add the proportion of the net income from investments as upon this Table No. 16, taking the same figure (though it would vary slightly from that figure) taking it as $93,166.64, adding that to the $1,233,861.46 would give us $1,326,038.10. From this we deduct the taxes, which amount to slightly over $130,000; and I have taken out odd amounts above the thousandth in each case, which brings the total down to $1,196,000, approximately, according to the way you have asked me to compute it.

Q. What did you say the percentage of intrastate to interstate was?

A. 24.4.

Q. How did you get it?

A. Using the figures on Table No. 14.

Q. What is that $14,551,116 divided into $4,000,000?

A. $3,482,116.02.

Q. And you make the division 26 per cent?

A. 26.4.

Q. Mr. Johnson makes it different. Will you glance at that operation to see if it isn't 23 from his figures or 23.93?

A. Yes, sir, the figures are reversed.

Q. Then your computations depending upon that are all wrong, aren't they?

A. Yes, sir.

Q. Well, I guess I will not ask you to make further computation,—except you agree with me, do you not that your result is wrong and you have your net too high?

A. I agree that the computation which I made for you is incorrect, yes, sir.

Q. And that the net which you gave in your answer is too high because you allowed too high a percentage?

A. Yes, sir.

Mr. O'BRIEN: Well, Mr. Butler, I think you have got that reversed now; the net would be higher.

Mr. BUTLER: Mr. Hillman says it would be lower; he is the only one that is doing any work here that I know of. I thought it would be higher.

Q. Now, from all these tables, do you think there is, Mr. Hillman, deducible a rule for general application to enable railroad companies, or others concerned in the question, to make division between the cost of intrastate business, freight and passenger, separating each from the whole cost within the state?

A. Yes, sir.

Q. I gathered from your direct examination that you laid out this work and told your men to follow the rule that you

laid out in this computation; is that right?

A. Yes, sir, they worked under my direction.

Q. Now, this division is not generally done, I gather from the testimony heretofore heard, by railroad companies, out of the net cost or the net income from intrastate passenger business or intrastate freight business. That isn't generally done by railroad companies, is it?

A. I have never seen it done.

Q. Did you ever hear of its having been done?

A. Not to the extent that this analysis has been carried, no, sir.

Q. Did you ever know, in your experience, any railroad, or in your reading in railroad accounting, any such thing as you have really performed having been done before?

A. No, sir.

Q. Now, when you entered upon the task of doing it, did you state the rule for doing it first, or did you go on and experiment and then deduce the rule from your experiments?

A. I laid out the plan of work when I first undertook it, and carried it through.

Q. Did you ever reduce your rule to writing when you entered upon this?

A. Oh, no, sir.

Q. Has it ever been reduced to writing?

A. No, sir, excepting for the preparation of this case.

Q. Now, this rule that you say which is deducible from the work that you have given us in these exhibits, would apply equally well to any road as to the Northern Pacific, would it? You told me a rule deducible for general application—there was a rule deducible which would be generally applicable to this problem?

A. The rule as followed and the method as followed (you can't call it a rule) the method as followed would vary with any road you take up according to the factors which you

would assume; that is, I couldn't set a percentage on the Northern Pacific that would hold on the Great Northern.

Q. What percentage do you refer to?

A. If I should say the percentage of operating expenses of inter and intra as shown on the table?

Q. No, that is the problem, that is the result.

A. Or if I should state the number of tons hauled on a local or through train,—none of that?

Q. No, that is not what I am geting at; I am not getting at a duplication of these figures; they probably wouldn't again be duplicated in any other period on the Northern Pacific, or upon any other road, would they?

A. Probably not.

Q. No, but the rules for arriving at the truth, to-wit, the cost of doing intrastate passenger business, for example. Is that a rule of general application, that may be followed on other roads, or is it one that must be built up after you learn the figures on each particular road that you examine?

A. The method followed (I don't like to call it a rule) in this analysis could be followed in any road in the United States. There might be possibly some—

Q. And would expose the truth equally as well as it does on the Northern Pacific?

A. Yes, sir.

Q. That is, the same method which has been followed in these exhibits and all that has been introduced in your present examination, would apply just as well to the C. B. & Q. in Minnesota as it would to the Northern Pacific, the C. B. & Q. having about twenty miles in the state and the rest of its mileage outside of the state; it would get just as truthful a result, in your opinion, as it would in the Northern Pacific's case? What is your answer? He isn't watching you.

A. Yes, it would apply to their business. The method is entirely analytical from beginning to end and then synthetical

in using those results which you obtain.

Q. So the very same rule applied to your analysis and your synthesis—applied to the concrete operations of the Rock Island road in Minnesota, or the Great Northern road in Minnesota, would, in final result, expose the truth as accurately as you have exposed it on your Table 16 of your Ex. 3-M?

A. Yes, sir.

Q. Now, that is a result that has never before, as far as you know, been attained in the profession of accounting, is it not?

A. It has never, to my knowledge, been attempted.

Q. Never has been attempted. Now, this same problem, to get at the cost of intrastate freight business or intrastate passenger business is arising in every state in the American union at the present time, isn't it?

A. I don't know, sir.

Q. Well, you know it is in a great many because you are employed in a great many?

A. Yes, sir.

Q. You see at once the value, do you not, of preserving and forming into formulae or rules the "method" (if you don't care to describe it as a rule) which you have adopted? Do you not? You see the immense value of that, do you not, to the whole accounting world?

A. I wouldn't say it is of immense value; I am not discussing relative values, but I should say that there is a method absolutely necessary and has to be arrived at.

Q. Well, it is here now and you have arrived at it, haven't you?

A. To the best of my knowledge and belief, yes, sir.

Q. When we pause I am going to ask for some days of preparation for your further cross-examination, but in the meantime I would like to have you prepare yourself to state

upon the record, once for all, the rule for making this division, so that every railroad company, here and elsewhere, may know what you say is the way to get at the cost of doing intrastate passenger business and the cost of doing intrastate freight business. Now, will you do that for us?

A. I will be glad to answer any questions that you may put to me.

Q. Then I will ask you now to state, once for all, the rule to which I have referred; and if you can't do it now, take time so that you won't have to repeat; and you can take whichever end of the stick you desire, you can do it now or take time, whichever you prefer.

A. In other words, you desire a general outline of my method?

Q. I desire you to state the rule which you say can be applied to all roads under all circumstances for getting at the cost of doing the interstate passenger business and intrastate freight business,

Mr. O'BRIEN: I submit, may it please the Court, that the witness has been stating it really for the last week.

WITNESS: That is what I was going to state; I would have to have another week on the stand if I did.

Mr. BUTLER: And that is the reason urged that he take time and formulate it in general terms. I thought I was conferring opportunity upon him to do it maturely and carefully and with chance to review it and just what ought to be done, and it seems to me must be done here. We have now a man who knows how to do the things that other men have testified in this case can't be done by accounts, and he says he has a rule which will apply to all the railroads in the state, under all circumstances, of analysis and synthesis; and I do want it formulated in this record just what that rule is.

Mr. O'BRIEN: Well, I submit that that is what the witness has been doing for the last week in testifying as to what he

has done with regard to each table. Now, I confess that I don't know any different way that it could be gotten at, and I don't know that the witness is either required or should attempt to write out what the counsel designates as a "rule." He has described what he has done and he has presented a formal table, and we are perfectly willing to go over each computation, either Mr. Hillman and any accountant, Mr. Johnson or any accountant of the road, as to any of these matters. It is entirely possible that various clerical errors will be found; if there are, have them corrected; if there are not, let them accept the computation as correct.

Mr. BUTLER: It is not for the purpose of correcting computations, or anything of that sort, your Honor. It is true, in, part, as Mr. O'Brien has stated, that he has been for a week telling what he did, but he has been telling the particular figures. Now, this is purely an arithmetical matter, with certain things given from which is to be deduced the cost of doing the interstate passenger business and the cost of doing the interstate freight business. Now, he says this method is of general application; we want a statement of it in general terms, first, to see whether he followed any, and we will undertake that labor ourselves as far as correcting computations is concerned if we can get at the data used.

Mr. O'BRIEN: Well, I really don't know what counsel wants except what we have been doing.

Mr. BUTLER: Well, let the witness answer.

The MASTER: Well, it might be well, perhaps, for the witness to state whether he can do anything other or different than he has done in response to counsel's question.

WITNESS: I could follow the tables which are contained in Ex. 3-M from beginning to end, state their relation one to the other and the application of those figures, just as I have done in this testimony which I have been giving the last week, and I could make that, by omitting the figures much shorter, but I

submit to the Court that I have done that as I progressed. It is already in my testimony, and each table has been explained and its relation to the other tables, and that the full rule and method which is shown by me is in my testimony at present. If they desire it and it is decided by the Court, I shall be very much pleased to give a formula, to give the restatement of the case in general.

Q. This is a mere problem in arithmetic, is it not, that you have entered upon and performed?

A. Certainly, it is a problem in figures.

Q. And an arithmetical operation?

A. And arithmetical operations.

Q. You have, given you, certain data, have you not? You take, as your starting point, certain data, either established or assumed, do you not?

A. Yes.

Q. And to those things you apply certain rules, just as you would for reducing a mixed number to an improper fraction?

A. Yes.

Q. And keep on going getting percentages and applying them?

A. Yes.

Q. Now, in the statement of a rule no one of these tables is essential to the statement of the general rule, is it?

A. No, no table is essential to the general rule.

Q. And no figure on any one of these tables is essential to the general arithmetical rule which brings this result, is it?

A. Not at all.

Q. Eliminating the figures and the details which you have been describing for all these six days, you could boil down a statement of your general rule to a very narrow compass, couldn't you?

A. Yes; but I submit that I have done so in this testimony.

Q. Yes, yes; that is, you contend that the transcript of six days' proceedings can be read, and from your testimony relating to the specific tables and specific figures in this great mass of exhibits, it would be possible for the Master or counsel or other accountants to deduce from that testimony the rule or method which you followed; isn't that true?

A. Certainly, it can be done.

Q. Now, there is nowhere else in the world, is there, that you know of where that method or the rule for doing that thing can be obtained except from a transcript of your direct examination?

A. As I said, I haven't been able to find any rule.

Q. Well, now, you can do that for us in a clear, professional statement, giving us, without regard to details or figures, the rule which you have followed and adopted, and say is the right way to do it, in comparatively short compass, can't you?

A. Yes.

Q. Will you do so?

A. Yes, sir.

Q. You may do it now or later, whichever serves your convenience the best.

The MASTER: What I understand is, that instead of the concrete examples which he has given us here, you want a general abstract rule or method which can be applied to any railroad and which will be applicable to any railroad and work out the results (of course with a difference of figures) that you have worked out here?

WITNESS: I would say, Judge, that I have that analysis practically in the form I think that would be wanted, but it is amongst my papers now, and I haven't it with me, so that I will wait the convenience of the Court and counsel as to

whether I shall go and get it now or whether I shall submit it a little later in the course of the case, tomorrow morning or at any time when they state.

Q. Tomorrow morning will do just as well.

A. Just as you please; I have that statement made but omitted it for the sake of brevity.

Q. Did you make out the general statement of the rule or method before you did the work in the Northern Pacific case, or after, or during it?

A. I laid out the method in my own mind when I came here, and, in fact, before I came here. I had the method in my own mind, and I formulated it the other day as a statement of the problem which it was necessary for us to solve in arriving at the deductions which we do in this case, and I think that will probably be just about what you wish.

Q. When did you formulate it in writing?

A. I dictated it about—well, just a few days before I came on the stand.

Q. Before you commenced your testimony here?

A. Yes.

Q. You were on the stand some months ago?

A. Yes, sir; before I commenced the testimony.

Q. It was since you were first sworn?

A. Yes.

Q. Do you agree with the analysis of accounts as made by the Interstate Commerce Commission in their latest order with respect to the manner of dividing operating expenses under various general heads and various subheads, as being a good, accurate, and the best method yet devised?

A. No, sir, there is no accountant in the United States but what has his own peculiar ideas about some particular point in that division by the Interstate Commerce Commission, but that is the fixed, adopted method and has to be conformed to whether you like it or not.

Q. You think it is well calculated to show the truth, do you?

A. Yes, sir, very well.

Q. Was there ever a better one promulgated by public authority, state or national?

A. Not to my knowledge.

Q. But you don't approve of it wholly?

A. There are some points, of course, that every accountant would like to know.

Q. Well, there are some details of it that you think might be improved; is that a fair statement of your attitude toward it?

A. Yes, that would be right.

Q. Now, I want to ask you some few questions as to some of these tables. Table 1, I understand, is a copy taken from the Northern Pacific books?

A. Yes, sir.

Q. And you have no responsibility for that at all?

A. None at all.

Q. Table 2 is another one, is it?

A. Table 2 is taken from their books.

Q. And you have no responsibility for that at all?

A. None.

Q. Those were data given you?

A. Yes.

Q. Table 3 is another one?

A. Yes, sir.

Q. And you have no responsibility for that one?

A. Save two columns there which I put a table in.

Q. Well, they are mere computations?

A. Where I add some of their figures for my own convenience.

Q. Well, they are mere computations from other exhibits on the table?

A. Yes, sir, and this item there, "General idea of operating divisions," is inserted by me.

Q. Well, that is a note of explanation. Tables 1, 2 and 3 are essential to the application of your rule to the Northern Pacific for the period covered by your exhibits?

A. They are basic tables, yes.

Q. And you need them all?

A. Yes, sir, they have all been used.

Q. The work you had to do, that everyone has to do when they undertake to find out the cost of doing any class or item of intrastate business, is to separate from the whole systemic expenses the items which are applicable to the particular business to be examined; is that right?

A. That is right.

Q. And if the road runs into several states, the first is the territorial division?

A. Yes, sir.

Q. And even as to that there are items common to two or several states?

A. There are.

Q. The proof in this case shows that on the Northern Pacific about seventy per cent may be allocated directly and thirty per cent common; did you make an examination of that?

A. Of the allocations?

Q. Yes.

A. Yes, sir, we made an examination of the books, the allocation of freight and passenger, and the allocation by, you might say, locality.

Q. Now, the Northern Pacific's view of proper division between Minnesota and the rest of the line is indicated on Table No. 1, is it?

A. Yes, sir.

Q. You examined the methods of allocation and division employed by the Northern Pacific, a number of the same, and

adopted their results as true?

A. I accepted their allocations, and also their divisions of items, as being fair and equitable.

Q. Did you examine their methods of allocating and their methods of dividing and become familiar with them and determine, as a matter of fairness between the state of Minnesota and the rest of the territory through which that system passes, the methods employed by that Company in making the divisions which are evidenced on Table No. 1?

A. I have, as I said, accepted their methods as being fair and equitable, and that is done from the examination of their records and the statements of their officials as to the methods that they had adopted therein.

Q. You know the methods of division territorially, do you, employed by the Northern Pacific and evidenced on Table No. 1?

A. I examined them with the Northern Pacific officials, yes, sir.

Q. And with respect to each common item you can state the basis for the division?

A. I suppose I could, yes, sir. I don't know whether I could now pass an examination on that but the matter was gone over at the time and checked.

Q. Well, that is a matter of very great importance, isn't it?

A. Yes, sir.

Q. And in the matter of a division various methods have been discussed by railroad accountants, for long periods of time, have they not, to get at the best one?

A. Yes.

Q. And is the Northern Pacific method the best one, in your judgment?

A. Why, as I said, they had a satisfactory basis, very satisfactory.

Q. How many different bases are used in making the terri-

torial division as made on Table No. 1?

A. There are principally three. There is one according to the track mileage, another according to revenue-train mileage, and the other by the mixture of revenue-train mileage, engine mileage and car mileage.

Q. What other bases are used by other roads on this problem?

A. They are all a mixture of that.

Q. So that answer would fit any road, no matter what method were employed, wouldn't it? your last answer would fit any road or any division that you ever heard of, wouldn't it?

A. No, there have been other methods.

Q. Fit the Minneapolis & St. Louis, would it?

A. The Minneapolis & St. Louis, yes, sir, with the possible addition that a—

Q. Fit the Great Northern?

A. The Great Northern, I haven't examined their allocation of states as yet; I don't know what methods might be in vogue in that road.

Q. Is the Northern Pacific and Minneapolis & St. Louis method of dividing territorially to Minnesota the same?

A. Practically, yes, sir.

Q. Well, is there any difference at all?

A. Yes, sir, there is some difference.

Q. What is it?

A. The Minneapolis & St. Louis use a monthly factor in divisions which the Northern Pacific do not.

Q. What factor?

A. Of the car mileage, engine mileage and train mileage.

Q. What does the Northern Pacific use in that place?

A. They use the divisional mileage on the absolute mileage, as stated, the Minneapolis & St. Louis using a factor which represents, within a slight percentage—that is they bring

it to the nearest percentage and tenths of per cent.

Q. Do they use the same factor for all items—the Minneapolis & St. Louis—all common items?

A. Oh, no, they use different factors.

Q. Now, referring to your Table 4, are you familiar with the method of dividing between freight and passenger employed by railroad companies other than the Northern Pacific?

A. With a number of them, yes, sir.

Q. Which ones?

A. The M. & St. L., of course, and the Louisville & Nashville and the Southern Railway.

Q. The Great Northern? Are you familiar with the Great Northern division between freight and passengers?

A. I haven't looked at that at all as yet.

Q. You have seen their exhibits here?

A. I understand their exhibit is on the basis of the Northern Pacific; I haven't examined it at all; I am not familiar with it.

Q. Is the method used by the Northern Pacific used by any other road that you know of except the Northern Pacific?

A. Yes, it is quite frequently used.

Q. The one most commonly used, isn't it?

A. The old train-mile basis is used very frequently on roads, the old revenue train-mile basis, with more or less change in the application, car mileage or engine mileage, just as the auditor or comptroller of the road may see fit to order it done from time to time and make a change in it. You have to examine each road to find out what methods they do use.

Q. And a method that would be good on one road might not be good on another; isn't that true?

A. Between freight and passenger?

Q. Yes.

A. No, sir.

Q. You think the same method of division between freight and passenger would be good on the Great Northern, Misabe

division, (which is a heavy freight-carrying road,) and we will say on the main line between New York and Boston of the New Haven road? The same method of dividing between freight and passenger, (that method which you have adopted in your No. 2) would be equally good on both and the best that you know of for either?

A. Yes, sir.

Q. So it would not make any difference whether the passenger business was the principal business of the road, or whether the freight business was the principal business of the road?

A. Not at all, because everything of that character is taken into account when I make the division. It is an analysis, not a fixed rule.

Q. Has the method employed by the Northern Pacific, as evidenced in double-column 1, been abandoned by any roads that you know of?

A. Yes, one road, the old Queen & Crescent road, has abandoned it, and,—oh, yes the Chicago & Northwestern has absolutely abandoned all attempt to divide any expenses between freight and passenger,—so I was informed the other day.

Q. Well, they abandoned the whole problem, didn't they,—the Chicago & Northwestern, not only the method, but all methods?

A. Everything.

Q. Did the Queen & Crescent do likewise?

A. Yes.

Q. So now, that isn't what I am at; you have marked this method obsolete. Now, that implies that somebody was using it and stopped using it, and got a better one, I imagine. Now, I want to know what road that did use the method of the Northern Pacific abandoned it as obsolete.

A. Mr. Johnson objected to that term, jokingly, the other day, branding it as obsolete.

Q. You didn't put it there for a joke on anybody, did you?

A. I put it there with this meaning, that the Northern Pacific themselves have told me that that is not, nor does it pretend to be, a correct division between freight and passenger. It is there for their purposes of comparison from year to year, and for no other purpose.

Q. And that is the reason you marked it obsolete?

A. And it isn't an obsolete matter for their comparison, to check up what their superintendents along the line and their officers are doing, but it has no bearing save where the matters are allocated; it is not intended to determine the expense of freight or passenger business or to base any computation as to the expenses on that column, and for that reason I have marked it obsolete

Q. You don't use the word obsolete, then, in the ordinary sense of the word; you use it as "inaccurate", is that it? Now, obsolete implies that it is worn out from age and that there has something better taken its place; isn't that it?

A. The term "obsolete" would mean to me that the purpose for which that was started had ended and as a division of expense between freight and passenger, as showing the true relation between freight and passenger, that method is an obsolete one.

Q. Well, now, the purpose for which it was started on the Northern Pacific road has ended; is that what I understand it for?

A. I do not know for what purpose it was started; but for the purpose of determining the expense of freight and passenger, to make a definite determination of the freight expenses and the passenger expenses, column No. 1 is obsolete.

Q. Was it ever any good?

A. I don't know.

Q. Well, now, column No. 2 is another obsolete method, is it?

A. Yes, sir.

Q. What is it put in here for?

A. We put that in merely to test the general division of the Northern Pacific, the Northern Pacific making their tests of revenue train mileage, etc., by the divisions, and this one being taken on Minnesota as a unit.

Q. You wanted to test an obsolete one by an obsolete one, was that the reason it was put in?

A. Yes, just to show that test.

Q. Now, what was Prof. Myer's rule put in here for?

A. To show a method of division between freight and passenger which has been applied of late years and one that, from the standing of the case, could be considered as a live matter.

Q. What was "Hillman No. 1" put in here for?

A. Well, that was for the purpose of dividing between freight and passenger.

Q. What was "Hillman No. 2" put in here for?

A. For the purpose of showing the method of division which would accrue by using a factor which was intimated in Prof. Myers' distribution, viz., net earnings; or, you might say abbreviated gross earnings.

Q. What was Peabody's put in here for?

A. That method is in use on the Atchison, Topeka & Santa Fe at present and was put in for that purpose.

Q. What do we care about the Atchison, Topeka & Santa Fe?

A. To show the method which had been adopted by—

Q. Peabody?

A. Mr. Peabody, who has made a study of this for a number of years.

Q. What was the average of the last four put in for?

A. To show that in the four live methods no heavy differences occurred.

Q. There is very little difference between "Hillman 1" and "Hillman 2" is there?

A. Very little.

Q. Both are included in the average, are they not?

A. Yes, sir.

Q. And if you would put in a "Hillman 3" that was just the same as "Hillman 1" or "2", or half ways between them, the average would have been nearer "Hillman", wouldn't it?

A. Yes, but if you look at the footing to Prof. Myers' method and at the footing to my method No. 4, you will note that there is more of a difference between my method 4 and my method 5 than there is between Myers' and my method 5, showing that I have not put in the second method for the sake of reducing the average, as you intimate.

Q. It has the effect of making the average more nearly "Hillman", though, doesn't it?

A. No, sir.

Q. Now, the Interstate Commerce Commission used to have a method, too, for doing this thing, didn't they, dividing between freight and passenger?

A. I believe they did, in ancient days, have a revenue train-mile basis.

Q. Well, they ordered a division to be kept, and prescribed the rules for keeping it, and it was done only under Henry C. Adams, wasn't it?

A. I don't know.

Q. You know Henry C. Adams?

A. I have met him, yes, sir.

Q. Know his occupation?

A. I have met him, yes, sir.

Q. Probably the most eminent authority on railway accounts living, isn't he, from the standpoint of the Government?

A. He certainly has a great reputation.

Q. And it was Henry C. Adams who formulated this freight division or classification of accounts for the Interstate Commerce Commission, its most recent one, wasn't he?

A. It was over his signature, yes, sir.

Q. He was responsible for it?

A. Responsible, yes, sir..

Q. Now, he wrote an opinion, didn't he, about fifteen years ago, that this was a difficult matter, and permitted the railroad companies to give it up, expressed a view to the effect—

A. I don't know about that at all, whether he did or not.

Q. Never heard of that?

A. I never heard of it.

Q. Did you ever hear that the Interstate Commerce Commission by an order withdrew its former directions to divide between freight and passenger?

A. I heard it very emphatically.

Q. Well, that was done by Mr. Adams, wasn't it?

A. Yes, sir, and at the time when I mentioned the division between freight and passenger I was told by one of the committee of railroad men who assisted him in making up his mind to abandon that, that if I ever got that idea back into Adams' head which it took them four years to bat it out of, that there would be trouble ahead for me.

Q. Did you?

A. —in a jokingly way.

Q. Did you get it back into his head?

A. I never spoke to him on the subject.

Q. He has never taken it up since, has he?

A. Not that I know of.

Q. You have no idea that he or the Interstate Commerce Commission are trying to promulgate a form of accounting to confuse people or to conceal the truth of the cost of interstate business, have you, either freight or passenger?

A. No, I don't know as I care to make answer upon questions of that kind.

Q. No, but what I am trying to get at is this: this division between freight and passenger is a matter of great difficulty,

about which there have been many divergent views and are many divergent methods, ins't that true, Mr. Hillman?

A. No, sir, it is true in part and not true in all. It is not an extremely difficult matter, if the accounts are kept with that in view; it is a matter in which there has been considerable divergence of opinion, but it isn't a difficult matter if that is kept in view when the accounting is made; it is an extremely simple one.

Q. Well, it is a matter in which railroad accountants of eminence in their profession have divergent views and disagree as to the best methods, is it not? Now, it may be easy for you, but I am speaking generally. Is it not considered a difficult matter and that any division is a mere approximation and none is, or in the nature of things can be, said to be accurate?

A. There is none that is mathematically exact. There is no railroad accountant who can not make that division with a degree of accuracy which is perfectly reliable for all purposes.

Q. Now, your division is precisely the same, is it not, between state and intrastate cost in the passenger business as if you had divided on a straight revenue basis; the spread of revenue is as 1 to 1.11, the spread of cost, as you make it, is as 1 is to 1.10? The spread of revenue in the passenger business for your year 1907 is as 100 is to 111, and the spread of cost is as 100 is to 109 and a large fraction; so after all of your labor and trouble and gyrations, you come out in the same pocket exactly as if you had, in the first place, divided on the basis of revenue?

A. No, sir, decidedly not.

Q. Well, what is your spread of revenue between interstate passenger and intrastate passenger in Minnesota? Isn't it as 100 is to 111.19?

A. Yes.

Mr. O'BRIEN: Which of those do you designate as a gyration,

or don't you think you can examine the witness without those characterizations?

Mr. BUTLER: Well, I don't think I am obliged to define, and if you came over here to find out you might as well go back and sit down where you came from.

Mr. O'BRIEN: You are as polite as usual, Mr. Butler.

Mr. BUTLER: If you are looking for trouble about phraseology or manners, you have got somebody who hasn't time to take it up with you.

Mr. O'BRIEN: Well, you will have to take time.

Mr. BUTLER: Well, go ahead.

Mr. O'BRIEN: I think the counsel ought to apologize for the use of the term "gyration." After a year's time in trying this case, this is perhaps the first instance any such term has been applied to a witness. I think it is uncalled for.

The MASTER: The record shows what occurred. Proceed.

Q. The spread of revenue is as 100 is to 110.906, is it not?

A. Yes, sir.

Q. And the spread of cost is as 100 is to 111.19?

A. Yes, sir.

Q. So that a division on the basis of earnings, that is, a division of the total passenger cost in Minnesota, interstate and intrastate, on the basis of the earnings from interstate and intrastate would produce substantially the same figure, would it not?

A. It would produce approximately the same figure.

Q. So that by a strange coincidence of these various combinations and methods of division between interstate passenger cost and intrastate passenger cost in Minnesota it happens in this particular instance to come out at substantially the same place that it would have come out if you had simply divided on the gross-earnings basis?

A. That is a coincidence in this case, yes, sir.

Q. And if you had used the net earnings basis it would have

come out the same way, would it not?

A. Approximately, yes, sir, in this case.

Q. In this particular instance?

A. In this particular instance.

Q. Now, if you had divided between freight and passenger in Minnesota, the problem that you undertook on Table 4, on the basis of gross earnings, the variation would have been less, would it not, than it is between the highest result and the lowest result shown by the various methods employed on Table 4?

A. No, sir, not if you omit the methods which confessedly have no application to the division between freight and passenger, which omits 1 and 2.

Q. But if you include all that you have shown on Table No. 4, a division on the gross earnings basis would be nearer to the result which you use than the result on Table No. 4, which is farthest away?

A. I repeat what I said before.

Q. But I am asking you another question; because of your limitations you accepted certain things here. I ask, if you include all that are printed here, a division on the gross-earnings basis would bring you out somewhere between the high and low mark.

A. Yes, if you include the confessedly inaccurate methods, certainly.

Q. Well, those that you have confessed to be inaccurate are the first one and two, are they not?

A. Those, yes, sir, that are inaccurate, so I have been informed?

Q. Well, they are all inaccurate, are they not?

A. Well, they are so grossly inaccurate as not to serve the purpose for division between freight and passenger.

Q. The percentage of operating expenses to revenue which you have shown—first as to freight in total and passenger in

total, interstate freight, intrastate freight, interstate passengers, intrastate passengers—the spread isn't very much; the lowest is over 52 and the highest, outside of taxes, is not 55; isn't that true?

A. No, sir.

Q. Well, what is the lowest and the highest?

A. The spread is from about 52 to 58 between 58 and 59.

Q. What is the 58 figure?

A. The operating per cent passenger, 58.89.

Q. Intrastate passenger?

A. Intrastate passenger.

Q. So the greatest spread that is reached is about six per cent in the operating factor?

A. About six per cent, yes, sir.

Q. And of course, if you would divide everything on the gross-earnings basis, you would get the same operating factor all the time, wouldn't you?

A. The greatest spread there, as shown on Table 13, is 7.2 per cent.

Q. And what are the figures?

A. 51.69 and 58.89.

Q. Relating to what?

A. Passenger inter and intra.

Q. If you would divide everything on the basis of gross earnings or net earnings, your result would be the same operating factor all the time, wouldn't it?

A. Yes, of course, necessarily.

Q. Or on net earnings—gross or net—it wouldn't make any difference, would it?

A. You couldn't divide an expense on net earnings until you had gotten it. It would be impossible.

Q. Yes, unless you divided one or two of the items and then divided the rest on the basis of those?

A. Yes.

Q. And call that net division, that would do it, wouldn't it?

A. That would be all right.

Q. If you eliminated some and then divided the rest on the basis of the allocation, that would be a net-earning division?

A. That would be a reduced gross earning or net earning.

Q. Now, with reference to Table No. 5, those figures on that table are the result of a great deal of examination and work, are they not?

A. Yes, sir.

Q. Have you the computations from which they were made? I don't mean the way-bills but the computations.

A. Yes, sir.

Q. And they will be open to our examination, will they?

A. Yes, sir.

Q. During the time that we ask for it. What tonnage is used on that statement, revenue ton or gross ton?

A. The revenue ton.

Q. And on table No. 6, what tonnage is used, revenue ton or gross ton?

A. Both there. The one used is the revenue ton, though.

Q. I mean the total tonnage on 6.

A. The total tonnage on 6.

Q. The ton-miles or the revenue ton-miles.

A. No, sir, the net ton-miles; the revenue ton-miles is the one used.

Q. Eh?

A. The net ton-miles, the first and fourth columns.

Q. First and fourth are net ton-miles. What is the difference between net ton-miles and the "dead" ton-miles, or total ton-miles?

A. The net ton-miles is freight. The dead ton-miles is the weight of the car and the weight of the empties.

Q. Then is revenue ton-miles the same as net ton-miles?

A. Yes, sir, in this case; net ton-miles here correspond with revenue ton-miles in Table 5.

Q. Then if I understand that, net ton-miles is the cargo, and the dead ton-miles is car, is that the idea?

A. Yes, sir.

Q. Did you ascertain that the Northern Pacific carried some tonnage for the Government free or at low rates?

A. No, I didn't.

Q. You didn't take that tonnage into account. Did you ascertain that it hauled a good deal of tonnage for nothing, that it got no revenue for?

A. Yes, sir, there was considerable Company tonnage there.

Q. How much?

A. I don't remember the amount, but that would be open to your investigation if you desire, Mr. Butler.

Q. Would it make any difference in your result at all if in this net ton-miles there was a lot of Company tonnage?

A. No, sir.

Q. Would it make any difference in the cost per ton of that which they did for the public?

A. Not as this Table is made up, no, sir.

Q. You show, do you not, the cost of the train movement items?

A. Yes, sir; the way this is handled it would not interfere at all with that computation.

Q. Well, didn't you divide the cost by the net tons including company's tonnage?

A. Yes, that included Company's tonnage.

Q. If there were fifteen or seventeen per cent of Company's tonnage, that would reduce the apparent cost, would it not, per ton, of moving the business?

A. Yes, if I used that factor in that way, but if you will follow very closely Table 6 you will see that the method elimi-

nates the trouble which would come from having such a tonnage in.

Q. Just tell me how you did that. I got the impression in your direct examination that in getting at your train movement cost you divided the cost by the total tons, including that which was paid for and that which was not, did you?

A. In order to determine—

Q. Did you do it that way?

A. Yes, this Table No. 6 has that in, has your tonnage in. Table No. 6 is used entirely to determine the cost of a through and a local train, and it costs just as much to move a ton of Company freight on a through or local train as it does anything else, and therefore the Company freight enters into the cost; and, having determined the cost of handling a through or a local train, we then use that cost to determine the relative cost of the other train movement; so by that we eliminate the trouble which arises from having Company freight mixed in with the other.

Q. Then your Table No. 6 assumes that the Company tonnage was moved in the same way as respects local and through trains and was generally of the same class of freight as the revenue freight was?

A. Not necessarily. It only assumes it was moved on a through or a local train, nothing more.

Q. And that it was the same as the average. Suppose the Company freight was all coal moving in heavy carloads, and the revenue freight was all silks, it wouldn't be right to assemble the tonnage all together, would it?

A. Why, most certainly, because it would make no difference in this computation. If you will examine the table you will see.

Q. That is what I understand: I understand that you assume like cost per ton for Company's freight as you do for customers' freight; am I right about that?

A. Yes, sir, it costs no more; the engine don't know any difference whether it is pulling a pound of silk or a pound of coal, it pulls just the same, and the brakeman works just as hard.

Q. All your figures are based on the proposition that, as far as train movement is concerned, a ton of freight of one kind costs just as much to be moved as a ton of the other, whether one be stone and the other be silk, does it not?

A. Through and local trains, yes, sir.

Q. And that assumes, does it not, that there would be as many dead pounds of car and engine to be moved for each ton of stone or coal as there would be for silk or satin?

A. You mistake again, Mr. Butler. The fact that this is the ton movement on a local train, whether the car is loaded half full, three-quarters full, or to its utmost capacity does not affect the matter in the slightest.

Q. Let us assume a carload of thirty tons of coal on a local train, and a carload of ten tons of something else, merchandise, on a local train, one would be attended by a great deal more dead weight per ton or pound than the other, would it not?

A. Certainly.

Q. And your figures are upon the assumption, are they not, that the cost of hauling—train movement cost—would be equal per ton movement, per ton of freight moved?

A. Yes,—your absolute records show that.

Q. I am not asking what our records show, I ask if your tables are upon the assumption that the cost would be the same without regard to the class of the freight or the weight of the carload.

A. That matter don't enter into it in the slightest.

Q. I don't care whether it does or not. I ask you if your tables are upon that assumption or if they are not.

A. The method outlined takes no account whatever of the loading of the car, whether to its full capacity or partial, or

whether the loading is of a high-class stuff or low-grade stuff, nor does it make a particle of difference as far as the computation goes.

Q. And assumes that such car having intrastate business on the local trains has as much as each car having interstate business and *vice versa*?

A. No, sir, no such assumption.

Q. Does it make any distinction as to the weight of the cargo on through trains or on local trains, as between interstate and intrastate business? Is that taken into account at all?

A. What do you mean by the cargo?

Q. The weight of the goods in the car.

A. No, sir, it has nothing to do with it.

Q. You say it is not taken into account?

A. That is correct.

Q. That is to say, if it were shown to be a fact that on local trains in each carload of interstate stuff there were twenty tons, but of intrastate stuff there were only three tons, that would not make any difference in the matter of cost of one as compared with other?

A. Not in the method of handling, no, sir.

Q. I mean in hauling it, in the cost of hauling.

A. In the cost of train movement as it was handled, why it would make no difference.

Q. And if your local intrastate business on the main line averaged three tons to the car and the business with which you have compared it on the branch lines averaged fifteen tons to the car, would that make any difference?

A. A very decided difference.

Q. You assumed that the local business on the main line had exactly the same carload average weight as all of the business on the branch lines which was done by what you call local train service and was used as the criterion of expense

for the intrastate business on local trains on the main line, did you not?

A. Yes.

Q. If that assumption be not justified in the facts, your conclusions are wrong, are they not?

A. Yes.

Q. And that assumption is one running through the whole matter of intrastate freight cost?

A. Yes; I have very fair authority for the assumption of that figure, though, Mr. Butler,—

Q. Well, I was not asking for that.

A. —your own President.

Q. If, as a matter of fact, on the branch lines, a large percentage of the annual tonnage is done on the basis, as respects cost, of through train service, then your conclusions are wrong, are they not?

A. It would certainly affect them, yes, sir.

Q. Yes, they would be wrong, wouldn't they?

A. Yes.

Q. If eighty per cent—

A. I would say that they might possibly be a little wrong. I won't say that they would without reference to that point, which would have to be carefully worked up.

Q. Yes, but you assumed, did you not,—

A. I assumed it, yes, sir.

Q. —that the branch business was all done on local-train-cost basis?

A. Yes, sir.

Q. And if it were shown you that the grain movements all came within a short time and that the trains hauling out large cars heavily loaded, reached capacity with respect to a large percentage of the tonnage moving on the branches, would not that destroy the verity of your conclusion?

A. If the light tonnage which occurs on a great number

of your branches did not offset that, it would; but I have allowed the limit of cost to this point.

Q. Well, I say viewing that factor alone, is that assumption any less justified by the truth?

A. Oh, yes, sir, if you assume that all the factors I have are wrong, of course my conclusion is wrong. That is a self-evident fact that we needn't go into detail with, either.

Q. Well now, arithmetically, if we assume that any essential factor is wrong, your conclusion is wrong, isn't it?

A. Certainly, sir. That is right.

RE-DIRECT EXAMINATION

By Mr. O'BRIEN:

Q. There are just one or two questions I want to ask while this matter is up so that it will appear consecutively. You were asked whether or not the system of dividing between freight and passenger expenses in vogue upon the Northern Pacific road had been abandoned by the road and another system adopted; isn't that exactly what Mr. Peabody has done?

A. Yes, sir, Mr. Peabody has done that in the Atchison case.

Q. So that is an instance of a road which has abandoned the method adopted by the Northern Pacific and adopted one which quite nearly approaches the double-column marked "Hillman"?

A. Yes, sir.

Q. And that method is shown in double-column No. 6.

A. Yes, sir.

Q. It appears from what you have said on cross-examination (I think you made the same computations in your direct examination) that the use of the percentage derived from gross earnings in making many of these divisions would give approximately the same results as you have arrived at?

A. Yes, sir.

Q. Now, if the proper relation between state and interstate rates had existed upon the Northern Pacific road, without re-

gard to the question as to whether or not both were too high or too low, the use of the gross-earnings method would result in a proper division of expenses, would it not?

A. Yes.

Q. Do you know that in the bill of complaint filed in this case it is alleged that the proper relation did exist between state and interstate rates?

A. I do not know that. I am not familiar with it; I don't remember that.

RE-CROSS EXAMINATION

By Mr. BUTLER:

Q. Well, now, Peabody, in your double-column 2,—is that the same as the Northern Pacific 1?

A. Yes, sir.

Q. Well, they don't get the same results, do they?

A. That, as I told you, was introduced there for the purpose of showing the method.

Q. I heard that, but Mr. O'Brien asked you where the Northern Pacific method had been once employed and had been given up, and called your attention to Peabody's obsolete method, as you have it marked on this Table 4, and I observe that Peabody's obsolete method does not divide the figures the same way as the Northern Pacific does, and I therefore inferred that the method was not the same; am I right?

A. The method was the same, with this exception: that we used the revenue-train mileage as a unit in making it up on Mr. Peabody's original method, and we did not use it. We used it as a divisional unit on the Northern Pacific.

Q. So the methods were different in that respect?

A. But what Mr. O'Brien meant was this: that here was a road which did use the revenue-train mileage basis—

Q. Well, he didn't say that, did he?

A. — and had now abandoned it for another method which was different and gave approximately the same results.

Q. You don't pretend that the Peabody method "obsolete" and the Northern Pacific method "obsolete" were the same methods, do you? If they were, they would divide in the same manner, wouldn't they?

A. The were practically the same method, yes sir.

Q. Because they came out near together?

A. No, sir, they were not intended for that purpose.

Q. When did the Peabody method No. 6, which you say supplanted it, take effect on the Santa Fe?

A. The order is marked "Effective July 1, 1907, revised November 1, 1907." When he changed his method from the straight revenue-train mile to the revenue-train mile, switching included I don't know, but it was some time between 1904 and July 1, 1907.

Q. Is this public property?

A. No, sir, it was given to me by Mr. Peabody, of the Atchison, with a request that I "keep it in my clothes."

Q. I don't want to examine it if you don't want us to.

A. I wouldn't like it to go out of my possession, but Mr. Peabody, I know, would be very much pleased to send you one on telegraphic notice.

Q. Was that paper used in making this exhibit?

A. Yes, sir.

Q. Then it would be open to us, of course?

A. Yes, sir.

By Mr. O'BRIEN:

Q. Mr. Hillman, you stated my position, I am afraid, a little better than I was capable of doing it. What I meant was that column No. 1, Northern Pacific method, and column No. 2, the original Peabody, or Atchison, Topeka & Santa Fe method, produced approximately the same results. Now, you have said that they were approximately the same method?

A. Yes, sir, they are practically the same method.

Adjourned until Tuesday morning, June, 1st.

FEDERAL BUILDING, St. Paul, Minn., Tuesday, June 22, 1909. Hearing resumed at 10 o'clock A. M.

CONWAY W. HILLMAN,
recalled for further cross-examination, testified:

By Mr. BUTLER:

Q. Mr. Hillman, when you were on the stand last, I asked you to furnish us, and you agreed that you would, a statement of the rule by which the cost of doing freight business may be divided between state and interstate in any state and a like division in passenger business.

A. Yes, sir. As I understood, it was the general outline of the method which was adopted in making this division and which would be followed, you might say, in all divisions of a similar character.

Q. Yes, I understood you to say it would be applicable to all railroads and to all states. You may go ahead and state the rule.

A. The first point is the distribution of the operating expenses to states. In this each operating division should have its expenses allocated to it as far as possible. The common expense is then distributed upon the factor bearing directly on such expense. Overlapping operating divisions are divided upon allocation and distribution as above.

The second point is the distribution of operating expenses to freight and passenger. They are allocated between freight and passenger wherever possible. Common is on the detailed bases as noted in the discussion of the Northern Pacific account which was before us.

The MASTER: In your testimony?

WITNESS: In my testimony, yes, sir.

The third point is the determination of the cost of freight per ton mile handled on a through train and on a local train.

The fourth point is to determine the amount of inter and intra freight on through and local trains. The cost derived from the third point and the fourth point is relative in its nature and is to be applied only to the cost of train movement expense items.

The fifth point is the determination of the division between inter and intra of all expenses other than train movement. This is in detail, as noted upon my testimony in the Northern Pacific case. We will then have the inter freight expense account and an intra freight expense account.

We then determine the amount of inter and intra freight earnings corresponding with the above charging of expenses.

The seventh step is the determination of the extent to which the proposed reduction of rates will affect the above earnings.

The eighth is the determination of the operating percentage inter and intra on both the basis of the present earnings and of the earnings after the deduction made by the proposed rates; or you might call them the rates under consideration.

The ninth is to determine the "charges to income" which are distinctively freight and depending upon operating conditions into inter and intra.

The tenth is the determination of the cost of through passenger trains as against local passenger trains.

The eleventh point is the determination of the density of traffic on through passenger trains and local passenger trains.

The twelfth point is to determine the passengers inter and intra using local trains and through trains respectively, and thus determine the cost of inter and intra passengers for train movement.

The thirteenth point is to determine the division of the operating expenses (passenger) other than train movement between inter and intra.

WE WILL THEN HAVE BOTH AN INTER PASSENGER EXPENSE ACCOUNT AND AN INTRA PASSENGER EXPENSE ACCOUNT.

Fourteen, determination of the passenger earnings inter and intra to correspond with the above division of expenses.

The fifteenth point is to determine the reduction which would accrue from the application of the proposed rates.

The sixteenth is to determine the operating per cent of passenger business inter and intra on the present basis and the reduced basis.

The seventeenth point is to determine the "charges to income" closely allied to the passenger business depending thereon between inter and intra.

The eighteenth is the division of net "credit to income" of all items outside of interest on funded debt and dividends, and also the division of general earnings which are not allied closely to either freight or passenger into inter and intra.

The nineteenth is the determination of the proper amount of capital or cost of road and equipment to which the above net earnings are to apply and determine the amount of such capitalization to interstate and intrastate. I would state here that in this analysis of mine I have not gone into the proper amount of capital upon which the earnings should be based, as I did not consider that within my province.

The twentieth point, the application of the above earnings to such capitalization intra freight and passenger and inter freight and passenger, giving the percentage of earning.

Q. That is a complete statement of the rule, is it?

A. Yes, sir, a complete outline of the method.

Q. Twenty separate divisions or operations?

A. Yes, sir.

Q. Are the exhibits which you presented in your direct examination prepared in strict accordance with the rule which you have stated down to your nineteenth rule?

A. Yes, sir.

Q. In every respect?

A. Yes, sir.

Q. Some of the operations, determinations or divisions which you have referred to under these twenty separate heads are not attainable with arithmetical accuracy, I take it?

A. That is correct.

Q. Are any?

A. Yes, sir.

Q. Enumerate the ones first that must be, at best, mere approximations, and then enumerate those which are arithmetically exact.

A. On No. 1, the distribution of operating expenses by states, the allocations would be arithmetically exact—the amount.

Q. 1 is exact?

Mr. O'BRIEN: No, he didn't say that,—the allocations.

WITNESS: No, sir, the allocations of the amounts on No. 1 would be exact.

Q. I don't think you quite understand my question. There may be exact elements in some and approximations in the same one; now, in case there are approximations in certain elements, then the total figure is an approximation because it is added to a part which is exact, an approximate amount added to an exact amount gives an approximate total, of course; so I want you not to go into the division of any of these operations, divisions or determinations that you have mentioned, but state, first, those which are approximate, arithmetically, and, second, those which are exact.

Mr. O'BRIEN: I don't think that the counsel ought to insist on a question being answered in any particular way, nor do I think he is justified in insisting that he answer his questions in the way that he suggests. If an item is capable of being divided between the portion which is directly allocated

and the portion which is approximated, I think that ought to be stated.

The MASTER: Well, as I understand, there are twenty rules, practically, given here. Now, the question is, as I understand it, whether in any of those rules there is the absence of approximation; whether you can say there is a mathematical accuracy or absoluteness in regard to any of those rules. I understand that to be the question, and I suppose he would be entitled to an answer to that.

Mr. O'BRIEN: Certainly he is entitled to an answer bringing the whole matter out but I don't think the witness should be required to say that the division of an item is a mere approximation when possibly the greater portion of that is direct.

The MASTER: Well, all he wants is any rule in which there is no approximation.

Mr. BUTLER: That is it.

Mr. O'BRIEN: Well, that can be ascertained, if the witness answers the question in the way he did,—and I think that brings out the entire fact; and if the witness is confined in his answer it only brings out a partial fact, and I don't think the counsel in that form of question has the right to confine the witness in how he shall answer. I simply don't want the record confused on that matter, and it is not illuminating if an item which is largely allocated is placed under the heading of an item that is apparently entirely approximate.

The MASTER: Well, the question seems to me to be proper.

Mr. O'BRIEN: The question is proper, it is the instruction to the witness that I am objecting to.

The MASTER: He would be entitled to a direct answer to a direct question.

Mr. BUTLER: I didn't intend to instruct the witness otherwise than to make my meaning clear—which I have apparently failed to do.

Mr. O'BRIEN: If the question is asked in such a way that it eliminates all portions of it that are allocated, that would be another matter, but it was not so asked. I don't want to unnecessarily interrupt, but what I claim is that the answer to that would be misleading if the witness stated that every item in which there was any approximation was an approximate value.

Mr. BUTLER: Well, the degree of the approximation may be called to the attention of the Master if it is desired; it may be by me, although I don't know; if not, it may be in re-direct, so the Court will have before it a complete understanding of it, I think.

The MASTER: You don't object to his making explanations as he goes along?

Mr. BUTLER: No, but I would like first, an enumeration of the items that are exact in whole, and an enumeration of the items of these twenty that he has mentioned which are approximate in whole or in part.

Mr. O'BRIEN: Well, of course, I think that is entirely proper, and I haven't the slightest objection to it, but it is what I have designated as the instruction to the witness which I object to. If the witness states "partially allocated" and "partially direct," "all direct," "all allocated" I have no objection, but I don't like to see the record confused by a statement that an item is approximated where a large portion of it is allocated, the inference being that it was entirely approximated.

Mr. BUTLER: Well, no one understanding the situation and having listened to the testimony could draw that inference.

The MASTER: As I understand it, if there is any approximation in any of these items, then they fall within the one class and if any of the rules are entirely free from approximation or are absolute, actual, they fall within the other

class. Now, let him answer.

Mr. O'BRIEN: I insist that that is not a proper division and that the witness ought to state the facts.

The MASTER: He is entitled, isn't he, to an answer along those lines?

Mr. O'BRIEN: Not unless he asks for an answer along those lines.

Mr. BUTLER: Well, I do.

Mr. O'BRIEN: He hasn't at this time asked for an answer along those lines, but he has made a general statement of his views and then asked this witness to classify these items. Now, I insist that this witness in classifying the items must be allowed to classify them according to the facts and not to go by the classification of the counsel. If the counsel wishes to classify them afterwards by another question he can do so. Now, it may be that all these things could be cleared up upon a re-direct examination, it may be they could be cleared up by subsequent questions by the counsel, but it has been difficult for me to keep my mind moderately clear on this as we go along.

Mr. BUTLER: Well, it is a hard job, but I will have to take my own way or I never will understand it.

The MASTER: I think we had better let counsel proceed.

Mr. BUTLER: I think I will insist on the answer.

Mr. O'BRIEN: Then I shall feel justified in instructing the witness that the counsel cannot limit him in his answer by any instruction and that he has a right in answering his question to explain the item.

The MASTER: I don't think, Mr. O'Brien, on cross-examination, you are entitled to that, are you? You can take that up on re-direct, of course, fully, but I wouldn't think you ought to give such an instruction as that at this time.

Mr. O'BRIEN: Well, I think I am justified in doing it.

The MASTER: Proceed.

Mr. BUTLER: In the first instance I want all that is approximated, in whole or in part, as "approximated" and all that is arithmetically exact as "exact."

The MASTER: That is the way I understood it from the first.

A. As outlined upon the general statement of the method and as determined in the case under question (the Northern Pacific road) none of the twenty or eighteen items are arithmetically correct.

Q. They are all, then, approximations in whole or in part?

Attorney General YOUNG: Now you mean correct or exact?

WITNESS: Exact.

Mr. BUTLER: Well, I understood "correct" and "exact" to mean the same thing when modified by "arithmetically."

Attorney General YOUNG: They may not be arithmetically accurate, they may be correct.

Last question read.

A. Yes, sir.

Q. Certain portions or elements or amounts of some of these eighteen items that you have mentioned in your rule, are arithmetically exact in divisions and determinations?

A. Yes, sir, with the understanding, of course, that they are as exact as any of the Railroad accounting. I do not mean by that to put any reflection whatever on the railroad accounting, but there are certain rules of railroad accounting which are observed in the distribution of expenses and the distribution of earnings which have been followed in these in which they are not always arithmetically correct; but I meant with that reservation (which I fully accept as to the correctness of their method,) they are arithmetically correct.

Q. I did not intend to apply any standard not stated in my question, no matter who followed it or when or where or how long; I wanted to find out whether or not certain amounts that were included in some of these eighteen different items

were arithmetically exact or if the contrary be the fact.

A. Yes, sir, they are exact.

Q. In some?

A. Yes, sir.

Q. Now, can you specify what items have no elements or amounts that are arithmetically exact?

A. In detail?

Q. By number and designation of the number, for convenience.

A. On No. 1 the allocations to operating divisions can be considered as arithmetically correct. The common expenses—

Q. Last question read and added to as follows: "the ones that have no elements that are exact."

A. No. 3, determination of the cost of freight per ton-mile handled on a through and a local train, which necessarily affects No. 4, the determination of the inter and intra freight cost on through and local trains for train movement items.

Q. The numbers that you refer to in this answer relate to the numbers of the items in that rule which you stated?

A. Yes, sir, in the rule, not to the table previously filed as an exhibit.

Q. And by the "rule" you mean the statement that you gave in answer to my first question to-day?

A. Yes, sir, which you have termed the rule and which I have termed the outline or method.

Q. Three and four you have mentioned as not containing any exact element.

A. No. 5 in the outline of the method also contains so little of arithmetically correct data that it may be considered as all approximated.

No. 6 is the determination of the division between inter and intra of all expense items other than train movement.

No. 7, determination of inter and intra freight earnings,

corresponding with above charges of expenses, (which is also for the purpose of the present exhibit, the Northern Pacific) contains no exact determination, but I would state that fact is susceptible of correct determination had the accounts originally been kept in that form.

No. 8, depending, of course, upon the above items mentioned wherein the expenses are distributed, would, of course. be affected by them and not be arithmetically correct.

No. 9, determination of the charges to income distinctively freight and depending on operating conditions into inter and intra, would be not arithmetically correct, for the same reasons as No. 8.

No. 10, the determination of the cost of through passenger trains as against local passenger trains, cannot be determined with arithmetical accuracy.

No. 11 is not determined with arithmetical accuracy in the present case but is susceptible of arithmetical determination.

No. 12, determination of the passengers inter and intra using through and local trains, respectively, and from this the determination of the cost of inter and intra for train movement, is not, in the present case, determinable with arithmetical accuracy.

No. 13 is not determinable with arithmetical accuracy.

No. 14 is not, in this case, determined with arithmetical accuracy but is susceptible of such determination by keeping of the accounts on the lines to show this information.

No. 15 is not determinable with arithmetical accuracy.

No. 16, the determination of the operating per cent of passenger business inter and intra on the present and reduced basis, is, from the fact that it depends upon the above accounts, not determinable with arithmetical accuracy.

No. 17, determining the division between inter and intra, the charges to income closely allied to the passenger busi-

ness, is for the same reasons as No. 16, not determinable with arithmetical accuracy.

No. 18, the division of the net credit to income of all items, is also, for the same reasons as 17, not determinable with arithmetical accuracy.

Q. The other items mentioned in your rule that you gave in answer to my first question to-day do contain some exact elements?

A. Yes, sir.

Q. Of which the first item is one?

A. Yes, sir.

Q. What is the first item?

A. Distribution of operating expenses by states.

Q. Item 2 is another that has some exact elements in it, is it?

A. Yes, sir.

Q. What is item 2?

A. Distribution of operating expenses to freight and passenger.

Q. Item 7, I think, is the next one that has some exact element in it?

A. Yes; the determination of the extent to which the proposed reduction of rates will affect the above earnings.

Q. Items 1, 2 and 7 of your rule, then, are all the items that contain any exact elements?

A. In this case.

Q. You mentioned two that might have been made exact by proper accounting?

A. In this case, yes, sir; and I would state here that I have included No. 15, the determination of the reduction which would accrue from the application of the proposed passenger rates, in what you might call the doubtful column—

Q. Inexact?

A. Inexact—on account of the difficulty in determining

just what the increase or the decrease in rates would affect the passenger travel, and for that reason I classed that determination with arithmetical accuracy—the amount of the proposed reduction under that heading.

Q. Now, in making your computations which have been introduced here in evidence, I understood you to say in your direct examination that you received no instructions from the Commission except (either expressly or impliedly) to expose the full truth with respect to the matter?

A. Yes, sir, that is correct. I was left perfectly clear to proceed on my own lines.

Q. Neither you nor the Commission, as far as you know, had any desire or purpose to reach any result, either a result that would be manifestly in favor of the State or one that would be manifestly in favor of the Defendant or anywhere between those two?

A. I was left—no, there was no intention, there was no discussion—the instructions from the State were to find the facts and determine without reference to what the result would be.

Q. And you did so?

A. Yes, sir.

Q. As far as you were able to?

A. And the tables, as given in my exhibit, were not applied to any determination as to whether it would be confiscatory or not until after they were completed in practically their present form.

Q. That is to say, you were pursuing truth and you didn't care which side it would lead to?

A. Yes, sir.

Q. And in your examination of the records of the Company you had full and complete access to all data and to the original evidence, did you?

A. Wherever asked for, yes, sir.

Q. You had everything that the Company has, as far as you asked for it?

A. With the single exception of a certain passenger statement which was made up concerning the earnings of trains themselves, which they stated was not accurate and was not checked with their total passenger earnings and therefore they desired that it be not used, for that reason, though I would like to have had it. But the fact of their having kept it in that way would render it unreliable for the present purposes and I agreed with them that I would not use the table.

Q. And agreed with them, further, that it wasn't of any use?

A. I did not examine it but, if kept in the way they stated, it wasn't.

Q. So that, in applying your rule to the data that you had access to, you would just as quickly and as cheerfully correct an error that the Company made against itself, either in computation or determination of any of these problems of division, as you would the other way?

A. If there was a correct factor I would feel that it should certainly be taken into consideration.

Q. The fact that the Company claimed this or that with respect to any given thing didn't affect you at all except as their claim was supported by reason; is that true?

A. As I determined it upon reason.

Q. And if their claim helped the State, you didn't adopt their claim on that account, did you?

A. I did not, no, sir.

Q. Now, in making these exhibits you followed the rule that you have stated? I think you have told me that already.

A. Yes.

Q. Are all these exhibits, all the data upon them, necessary to the application of the rule to the problem before you,

or are there some tables or parts of tables that are not necessary, that may be considered irrelevant as far as the application of your rule is concerned?

A. I don't recall any that are irrelevant to the matter in hand or to the rule. I believe in one case I did on one of the tables give certain data which followed directly from the rule but which were a conclusion in themselves.

Q. Which one was that?

A. That is the first division of Table No. 9, which in my testimony it was stated that this was a conclusion in itself and not used subsequently in the computation which followed.

Q. That is the only part of any table, then, that you consider not material to the application of your rule?

A. Yes, sir.

Q. You were not doing anything else except applying this rule, were you?

A. I was only applying the rule and showing the conclusions which would naturally follow from that rule; certain conclusions which would follow from that rule were also shown although they might not have been part of the rule.

Q. Let us go over these tables, cursorily at first, and then some of them we will have to examine with somewhat more detail. Table No. 1, as I understand it, shows by separate accounts total operating expenses chargeable in Minnesota by main lines and by branches for each operating division, and divided between freight and passenger?

A. Yes, sir; with the addition of a total column showing the total main and branch and the total of all operating expenses.

Q. And that, you told us, was a transcript of the books of the Company?

A. Yes, sir.

Q. And on the books of the Company that statement ap-

pears by months, does it not, for each calendar month?

A. For each calendar month, and a total for the year.

Q. So that a similar table could be transcribed from the books for any month?

A. Yes, sir.

Q. For April and October, 1907, to fit with the tonnage Table No. 5, which you made by examination of the way-bills and other papers? That is correct, is it not?

A. That is right.

Q. Table No. 2 shows by separate accounts the total operating expenses for all divisions mentioned in Table No. 1, which are partly within and partly without the state of Minnesota, and divides these expenses between freight and passenger?

A. Yes, sir, Table No. 2 shows the portion of those divisions which overlaps.

Q. Of course, by reason of these overlapping divisions, and perhaps for other reasons, there are a large amount of operating expenses that are common to this and some other state or states?

A. Yes, sir.

Q. You examined the various bases of division which were followed by the Railroad Company in making this division between states as indicated on your Table No. 1, did you?

A. Yes, sir, I accepted their statement of the methods that they had used in making such division; I did not check their computations.

Q. No, but you examined and considered, in the light of the location and manner of operation of the road, the propriety of the bases of division of expenses common to two or more states?

A. Yes, sir.

Q. And you found that they were all sound?

A. I accepted their division.

Q. Well, I understand that, and you told us that in direct examination and you told it to us since, but I want to ascertain from you whether, as an expert accountant, in pursuing this thing to get at the exact right of it, the method of the division of operating divisions as between states is right, logical, just, fair and sound in all respects and particulars.

A. I consider it fair, sir.

Q. In every detail?

A. I will not say in every detail, no, sir. I say I consider it fair.

Q. Is there any detail that is not, in your opinion, perfectly fair and just? If so what are they?

A. If you leave the "perfectly" out, I will say that there is none. If you say it is fair and just, I will accept it.

Q. As fair and just as you can think of?

A. As fair and just; I will not put the "as I can think of" in.

Q. Can you think of any better way to divide any of these items, and if so, which items and what is the way?

A. The main one which suggests itself to me just at this present moment is their division of general expenses between states.

Q. How do they divide it?

A. They divide that to a great extent upon the train mileage, which I would not use, but use a total, but it so happens that the—

Q. You will have to make that a little plainer to me than "use a total"; I wouldn't know how to divide it by simply saying "using a total."

A. I would have used the total allocation of expenses in all items up to that point and divided on that basis.

Q. Why?

A. From the fact that, as I explained in my other testimony, the general expenses are an index for the supervision

of all that has gone before.

Q. That is to run trains, isn't it?

A. General expenses? Oh, no, sir.

Q. What your railroad is for is to run trains, isn't it?

A. Yes.

Q. Freight and passengers, that is what it is for, isn't it?

A. For the carrying of freight and passengers, not to run the trains. The train is an incident in the carrying, it isn't the whole thing.

Q. So you would divide, then,—for example, you come to the salary of the general manager of a road and we will take the branch running from Wadena to Oakes, part in Minnesota and part in North Dakota,—the Railway Company divided that item of expense (that is common to two states) on the train-mileage basis, revenue train mileage of both freight and passenger; is that it?

A. Yes, sir.

Q. Number of miles in Minnesota as compared with the number of miles in North Dakota, taking the whole mileage and percentage, is that the way they did it?

A. I believe so, yes, sir.

Q. And that, you say, is not a fair way?

A. It so happens that that percentage was close enough to the amount which was shown in other ways to make no practical difference and their state allocation was therefore accepted.

Q. I was coming to that in my next question, but my present question is that that, in your opinion, is not a fair way to divide that item of expense common to two states?

A. No, sir.

Q. What is your way? What is the fair way?

A. I stated that, a moment ago, as the proportion of the expenses which had previously been shown.

Q. I don't understand that.

A. The expenses which had been shown previously up to the general expenses; that is, the seventy-three items which had preceded the general expenses should be taken as the basis of the division, their relation to the total.

Q. You have there the seventy-three items before the general expenses; how would you divide on that basis? Just give me the arithmetic of that; I don't see it very well. Not the figures, but just the method of getting at it.

A. You would simply take the sum total of the expenses which you have already incurred up to and including No. 73, and find what relation those expenses bore to the total expense.

Q. On the whole road?

A. On the whole road, and on that basis put that proportion of the general expenses into the general column.

Q. That rule is a good one for general application, and it wouldn't make any difference how long the branch was or how long the main line was in any state or how much of the branch was in that state or how much of it was out?

A. No, sir; I consider it the best rule that could be determined.

Q. Now, take that same division that I speak of, I can't tell the mileage, there is a portion of the mileage in Minnesota and a portion of it in North Dakota; suppose there were twice as much in Minnesota as there is, would your method of division change that item at all of these general expenses?

A. It very possibly might change it.

Q. How?

A. It would depend upon the amount of expenses which had been incurred upon the total mileage, which, as a general thing, would be, roughly speaking, twice as much.

Q. But the expense of a particular branch, say fifty or sixty or one hundred miles long, would be a very small item, would it not, of the whole expenses?

A. It certainly would.

Q. Very small indeed, and to double the mileage would not change the item to amount to anything, would it?

A. Only inasmuch as it would change the operating expenses on that line.

Q. Now, where did you come out, how far apart, with that division-making?

Mr. O'BRIEN: You know they are all divided by branches; you have got each branch separately.

Mr. BUTLER: But he didn't divide by each branch separately.

Mr. O'BRIEN: No, but in his theoretical division you are speaking about now, it would be divided by that branch, because each branch is separate; taking all the branches going to make up general expenses, and then divide it by that.

Q. How much difference did it make?

A. I don't know; I do not recall.

Q. Well, you said it was slight.

A. I remember it was slight or it wouldn't have been discarded.

Q. Are there any other divisions that the Company made as evidenced by its Table No. 1 that was wrong in theory or reason?

A. None that I recall now.

Q. What percentage of the operating expenses was allocated directly and what divided on an arbitrary basis per Table No. 1?

A. You mean by states or freight and passenger?

Q. I mean to Minnesota, territorial divisions.

A. I don't recall now. My impression was it was about fifty-five per cent.

Q. Well, did you examine and find out?

A. I did at the time.

Q. Will you just make a little note of that and tell us at some subsequent time?

Witness makes notation.

Q. Your recollection is it was fifty-five per cent but you are not sure about that?

A. I am not sure.

Q. Before I leave Table No. 2, that table is in for the purpose of showing the number of the branch expenses that is attributable to Minnesota, that is, the overlapping branches?

A. No, sir, that is for showing the overlaps on Minnesota divisions which reach into other states.

Q. Showing what about the overlaps?

A. The expenses charged to other states than Minnesota on divisions which you might say appertain to Minnesota.

Q. That is, the other end of the same division?

A. The other end of the same divisions.

The MASTER: This is all outside the state?

WITNESS: Yes, sir, No. 2 is outside of the state, but the divisions reach into the state, and therefore I have shown the overlapping portion as well as the Minnesota portion.

Q. The purpose of that was what?

A. The purpose of that, (of the table) became of use both in the examination of cost of trains and also in the division of "station agents, clerks and laborers."

Q. Well, your whole computation depends upon the assumption or the truth (whichever it may be) that the cost of operating branch lines is the criterion of the cost of operating local trains on main lines, does it not?

A. I have used that factor as the cost of operation on main lines.

Q. And your computations depend upon that?

A. My computations have been made on that basis, yes, sir.

Q. And your computations as to the cost of local trains

depend upon the correctness of that assumption, do they not?

A. Yes, sir.

Q. And if that assumption be not justified, as you told me when I examined before, your result is wrong?

A. Yes, sir, the change of any of the factors that I would use necessarily changes the result.

Q. Now, in getting at your branch cost of operation, did you take the whole branch where it crossed the state line or only the portion within the state?

The MASTER: As I recollect your question and the witness' answer it was to this effect (I queried then whether he meant just that) that the cost of all the business on the branch lines which the witness considered local was the criterion of cost of through trains on the main line.

Mr. BUTLER: I meant local trains if I said that.

The MASTER: You said through trains.

Mr. BUTLER: I misspoke myself, then; I meant local trains.

The MASTER: I refer to the testimony the other day.

Mr. BUTLER: Well, then I made a mistake the other day.

The MASTER: Here you have got it right but I went over that pretty carefully.

Mr. BUTLER: Well, that may be changed, perhaps; you may consider that.

The MASTER: You start out with local trains, in which the witness assumed that local trains on main line had the same average carload weight as all of the business on the branch lines, then you wound up that question in the manner I have suggested.

Mr. BUTLER: I thank you very much. I meant it the other way, because I understood it the other way.

The MASTER: I think if we just simply change that word "through" trains to "local" trains on main lines in that question,—I called the Reporter's attention to it and with the per-

mission of all present will have him change it because it gave me trouble. (See p. 3759 of transcript.)

Last question read:

A. The whole branch where it crossed the state line.

Q. Without regard to how much mileage was in the state or how much out? That is, you took every branch in the entirety which overlapped the state line?

A. Yes, sir.

Q. And also all branches wholly within the state?

A. Yes, sir.

Q. Now, was it the cost of any particular branch that you held to be the criterion of cost for local trains on the main line?

A. No, sir.

Q. Just the average of them?

A. The average of them.

Q. So that if the Northern Pacific were to build one hundred miles of very profitable branch where conditions were favorable to cheap operation, it would, by application of your rule, reduce the average cost on branch lines, and therefore, by your assumption, reduce the cost of local trains on the main lines?

A. You must recollect that this is for train movement only and that should such a branch be built and should through trains be run on that branch (through freights) and it not be operated as a local proposition, (a local freight train proposition) we could not use that branch as any criterion of the expense on the main line. The idea is since you—and I mean the Northern Pacific—have operated their branches as a local train proposition, we have there a local train movement cost. Should your branch which you build be operated locally by local freight trains, I would have included it in my train movement expenses (which determine the amount) on Table No. 6.

Q. Then it is a matter of judgment, is it not, whether or not a branch should be included in the making up of the average branch line cost as the criterion for local trains on the main line?

A. I do not consider it so. It is a question of actual fact whether or not it was operated locally or through; that is the criterion, not individual judgment.

Q. You included all the branches that they have in Minnesota, did you not, in getting at your average branch line cost?

A. Yes, sir.

Q. And you included all the branches that crossed the state line of Minnesota?

A. Yes, sir.

Q. Because, within your definition, they were operated as local; that it right, isn't it?

A. They were, yes, sir.

Q. The cost per ton moved on the different branches is the same or varies?

A. It would vary considerably, I should judge.

Q. Per ton-mile?

A. It has not been worked out, but Ishould judge it would vary considerably.

Q. You couldn't avoid working it out, could you?

A. Individually, yes, sir.

Q. But you could not avoid seeing at a glance that, either by a per mile of track or per ton moved or per ton-mile, the cost on different branches varied greatly? You couldn't help observing that, could you?

A. I haven't worked it out, but I have no doubt, from a casual examination of the records, that such could be the fact, that there would be considerable variation in the cost of different branches.

Q. Yes; probably a hundred per cent variation, wouldn't there?

A. I couldn't tell without working it.

Q. Do you happen to know on which branch the lowest cost per ton-mile obtains?

A. No, sir, I don't.

Q. Or the highest?

A. I do not.

Q. Did you consider that part of the road beginning at Winnipeg Junction and going to Pembina as a branch?

A. Yes, sir.

Q. That is the route taken to Winnipeg, is it?

A. Yes, sir.

Q. It is a very profitable branch, with several trains of each class each way per day, isn't it?

A. There are no through freight trains on that branch, according to the schedule.

Q. Well, just answer the question.

Last question read.

A. I haven't gone into the details of the profitableness of that branch, but I have examined the record to show that, on the schedule, there are no through freights on that branch.

Q. How many regular freights are there on that?

A. I do not know.

Q. Could you find out whether they were through without finding out what trains there were?

A. No, sir, I would have to examine the schedule and note whether they were through or local. Having once examined that and determined that fact I would not count the trains or recall what was on the schedule.

Q. How many regular passenger trains on that so-called branch?

A. I would probably not look at that.

Q. Now, let us assume, for the purpose of your answer to

this question, Mr. Hillman, that that is a profitable branch, and that the cost of operation per ton, per ton-mile or per mile of track on that is low, much lower than the average of branch-line costs, and then let us assume that that branch was sold to the Canadian Northern, that is active up around Winnipeg; the result of that sale would be, would it not, to increase the cost of operation of local trains upon the main line of the Northern Pacific road, according to your rule and method?

A. If the cost per ton per mile of the train movement on that branch of which you speak was below the average of the branch lines in the state of Minnesota or those considered as applying to the state, it would increase the cost per train-mile of carrying the business.

Q. If that company sold the branch?

A. Yes, if it passed out of consideration for any reason; and that would, of course, raise the price per ton per mile, and applying that to the cost on the main line per ton per mile would reduce the cost of your through movement per ton per mile on the main line.

Q. Through movement or local train movement?

A. Through movement.

Q. Well, it would affect your result?

A. The change of any factor would affect my result, or it would affect my result—

Q. Let me see if I understand that now: The elimination of a branch on which operation is cheap would, by the application of your rule, increase the cost of local train service on the main line?

A. It would,—not by the application of the method which I have spoken of here—

Q. Well, it would if the method were applied?

A. It would in this case, sir, the way I have handled it in this case to determine cost.

Q. Well, you have handled it in this case according to the method you told us?

A. The method, if you will recollect, Mr. Butler, states that we have to determine the cost of freight per ton-mile handled on through and local trains. Now, that leaves it for us to determine that matter.

Q. What matter?

A. The cost of through and local trains. Here is the method that I have used in the Northern Pacific to determine the cost of through and local trains. It does not necessarily come that it changes this rule or that it is the application of the rule, but the method that I have used here for the determination would be changed.

Q. Because the rule does not speak on the point is the reason, isn't it?

A. Because it might be necessary for us not to determine it in this way.

Q. You may have to find some other way?

A. Some other manner, in case the factors didn't apply.

Q. So, as to that particular determination, the rule itself is silent?

A. Yes, sir.

Q. And the method that you followed in the Northern Pacific is not to be generally applied as a supplement to the rule?

A. No, sir.

Q. Does that frequently occur, that the rule that you have stated here is silent with respect to details that may vary in given cases?

A. It does.

Q. So then, the rule does not speak on the point at all?

A. This is a method, not a rule.

Q. Well, the method. Now, as a matter of fact, the transfer of that road to the Canadian Northern would not affect

the cost at all of local train movement on the main line of the Northern Pacific, would it?

A. Not at all.

Q. Having nothing to do with it, would it?

A. No.

Q. So, if the Northern Pacific were to build an unprofitable branch during the current year, where the cost per ton mile on it would be very high, much above the average, and next year they undertook to find out the cost of local trains on the main line and included this unprofitable branch, by reason of the high expenses attending operation they would get a higher figure for the cost of operation of local trains on the main line, would they not?

A. They would; as noted in my testimony, I applied the extreme limit as reflected by your branch line of the cost of local trains; and, if you will recollect, that was confirmed by Mr. Elliott in his testimony, that the limit of cost of a movement was reflected by the branch line.

Q. Did you determine that or did you assume it?

A. From what Mr. Elliott said.

Q. Without examination. You have quoted Mr. Elliott in your direct examination and now twice in your cross-examination; did you consider the matter yourself, or is that one of the things stated by the Company that you took without inquiry because the Company made it?

A. No, sir, I determined that myself before Mr. Elliott gave his testimony. His testimony is merely confirmatory of this.

Q. Now, to get back to our question, the addition of an expensive branch line would, if you followed the same method after the completion of that line, give you a result increasing the cost of local trains on the main line; isn't that true?

A. Yes, sir.

Q. But it would not have any such effect at all, would it?

A. No, sir.

Q. So then, that method wouldn't do at all, would it, unless the subject were examined by somebody who was capable of deciding and it was decided in fact that the average cost on all the branches touching the state was exactly the same as the average cost of local trains on the main line?

A. Well, isn't that rather in the nature of a statement from you, Mr. Butler, than a question to me? I would rather have it more direct, if you please.

Q. Well, I guess you will have to do business with it in its form, if Mr. Hillman, the Reporter will punctuate with an interrogation point.

Question read.

Q. Do you agree with that statement?

A. Yes, sir, that statement is correct.

Q. And did you, as a matter of fact, consider the whole subject before you entered upon this work and determine that, on the average, the train-service cost, on the branch lines of the Northern Pacific Company in or touching Minnesota, was exactly the same as the local train-service cost on the main line?

A. No, sir, nor have I in my testimony ever stated that it was exactly the same; but I have looked into the matter and considered that it was a fair criterion of the cost of the local trains for the state of Minnesota, and, moreover, in examining those records, that the cost of the local business on the main line would probably be less per ton per mile than the cost that I brought in off the branch, and that in bringing this cost in off the branch line operated locally and applying it to the main line, I was applying to the main line movement a cost in excess of the main-line train movement. I had that matter in mind and kept it in doing so.

Q. Why didn't you make it right?

A. Because I had no method of determining cost of a local

train on the main line and I had the method of determining a train operated under local conditions on the branch lines where the traffic was extensive.

Q. Did you find any through trains on the Pembina branch while you were making that examination?

A. I found no through trains.

Q. What period did you examine?

A. I looked at the train schedule and also asked Mr. Richards, superintendent of transportation, if they ran through trains on the Pembina branch.

Q. Does it sometimes happen that there are through trains that are not regularly scheduled?

A. It does.

Q. Did it so happen on that branch?

A. It does, according to my testimony before, that there are often through trains on branch lines as the traffic calls for them, but they are incidents to the operation and not regular methods.

Q. Did you ascertain the percentage of the tonnage moved on through trains on this particular branch?

A. No, sir.

Q. Or the ton miles?

A. No, sir.

Q. Would that make any difference?

A. It would be very slight, because it is not a regular operation of the line.

Q. Well, suppose at the grain-moving time it should appear all the grain came in the special through trains loaded heavily, would that make any difference?

A. Oh, yes, sir, every train that would come through on a through movement would affect the total; that is undoubted.

Q. So then, you say that you analyzed the operating conditions of the Northern Pacific so that you determined not

only that the average cost on the branch lines was a fair criterion for the average cost of local trains on the main line, but that, as a matter of fact, it was a little too high and that you didn't correct it because you didn't know how or didn't have the data?

A. I didn't have the data, yes, sir.

Q. Did you find that same condition to be true on the Great Northern?

A. I haven't completed the Great Northern statement as yet.

Q. You haven't yet determined whether or not the average cost of the branch lines on the Great Northern is a fair and just criterion for the average cost of local trains on its main line?

A. I haven't examined the Great Northern yet on that basis; the data is not in my hands.

Q. You haven't determined the point that I included in that question yet?

A. No, sir.

Q. Did you on the Minneapolis & St. Louis?

A. Yes, sir.

Q. What did you find? Did you find that the average cost on the branch lines of the Minneapolis & St. Louis (that is, those branches touching Minnesota) was a fair criterion for the average cost of local trains on the main line of that company, or that it was not fair?

A. I found it was a very fair criterion of the cost.

Q. Over or under, or, as a whole, in your judgment? It is a matter of opinion, isn't it?

A. As a matter of opinion, I should think it was slightly in excess of the local movement on the through trains.

Q. The situation of the Minneapolis & St. Louis is very unlike that of the Northern Pacific in this state, is it not?

A. In what regard?

Q. Every regard as far as operating is concerned—density of traffic, length of haul, average length of haul of local business, length of runs of trains, and every other particular?

A. Yes, sir, it is entirely different.

Q. But still you found, when the comparison of their operating conditions was made between branches and the local trains on the main line, that it came out just the same as it did on the Northern Pacific?

A. No, sir, not the same.

Q. Just a little over, you said the cost was, in both, didn't you?

A. Yes, sir, but they are not the same.

Q. Well, I mean relatively.

A. Yes, I consider that the cost of the local trains derived from the branch is slightly in excess of that of the local trains on the main line in both cases.

Q. Then the result of your examination and the result of applying your judgment to it gave you the same thing, didn't it?

A. I would say yes, with the understanding that it does not give me, arithmetically, the same result.

Q. Not the same figure?

A. Not the same proportion but the general result is the same.

Q. As far as this point is concerned it is the same. By some coincidence or other you find that the branches of the Northern Pacific, when you consider them in their operating costs, on the average gives you a fair and just criterion—a little high—for the cost of local trains on the main line, and by similar examinations you find that the same thing is true on the St. Louis?

A. Yes, sir.

Q. Have you examined any other roads on that point to find out whether there are any more in the same situation?

A. None in the state of Minnesota.

Q. Can you state, without too much inconvenience, what separate elements you considered in making this determination that the branch line is a criterion of local train cost on the main line? I don't mean to ask for the figures but merely the elements.

A. The elements would be operating accounts Nos. 10 to 28, which we have spoken of so often. Those are train operating expenses. Those are the elements which enter into the determination of this local train cost. They are the expenses which are incurred by the direct running of the trains, as you understand. We have also considered the number of ton-miles upon the branches and divided those ton-miles into the cost of these items on the branches. That is shown on Table 6. We have also divided the ton-miles on the main line into the cost of those items on the main line; and the elements of the main line tonnage and the branch line tonnage,—the branch line tonnage handled locally (I mean by local trains) and the main line tonnage handled by both through and local trains—and the cost of each of these services, the one direct, local, and the other mixed through and local, have been the elements by which this has been determined.

Q. Determined or applied?

A. Well, determined—

Q. I didn't ask you how you applied it, I asked you what elements you take into account to determine the correctness of your criterion.

A. I have stated the ton-miles and the cost of handling those on trains for both the branch and the main line.

Q. Have you stated at all?

A. As far as I understand your question, yes, sir; if there is anything more, why just say so, I would be glad to go on.

Q. No, you did it and I didn't know what you were doing and I haven't found out yet and I am trying to find out now.

You determined the justness of a certain criterion or cost for local train service on the main line, and I asked you to state, consecutively, what elements you took into account and you have stated a good many and now I want to be sure that you have stated them all.

Mr. O'BRIEN: Well, as I understand, what Mr. Butler asks you is how you came to the assumption that the cost on branch lines equals the cost for local business on the main line; isn't that it?

Mr. BUTLER: Well, I wanted an enumeration of the elements, I don't care for the figures.

Mr. O'BRIEN: What elements he considered in coming to that assumption?

Mr. BUTLER: That is it. He has told some and I want to know if he has told them all.

WITNESS: In addition to that, I also examined what you might call the density of traffic on the branch lines as compared with the main line, and finding that the total branch line was very considerably under the density of traffic of the main line, I also add that factor as another of the reasons why I could adopt this as the cost on the main line local train movement.

Q. How did you determine the density and how did you apply the factor in making up your judgment as to the justness of the criterion?

A. I found my density of traffic mostly from the "A. S. & M. S. 5" statement, with which I was furnished a copy from the Northern Pacific—where that is shown in considerable detail.

Q. Did that show the density of freight movement or the density of gross movement?

A. Both.

Q. It showed it separately?

A. It showed both, yes, sir.

Recess until 2 P. M.

AFTERNOON SESSION.

Q. Before leaving Table No. 1 (and I suppose 2 is on the same basis as respects the point I am about to make) the division from the whole mass of operating expenses of the part that is attributable to Minnesota, (and I am speaking of the territorial division,) you accepted the Northern Pacific—

A. Yes, sir.

Q. And think it right, subject to the criticism you made this morning?

A. Yes, sir.

Q. How would it do, in your opinion, to divide between states all operating expenses on the train-mileage basis?

A. I think it would not be a correct factor.

Q. Why?

A. Because there are so many expenses which do not depend upon the train mileage for their division.

Q. Do you know the attitude of the Minnesota Commission on that point?

A. In their instructions to the railroads concerning the division?

Q. Yes.

A. Yes, sir.

Q. They so direct, do they not?

A. They do.

Q. In that you think they are wrong?

A. Yes, sir.

Q. That would increase the operating expenses on the Great Northern road attributable to Minnesota half a million dollars, wouldn't it?

A. I don't know, sir.

Q. You haven't made a test of that?

A. I haven't made a test of it.

Q. Did you make a test on the Northern Pacific?

A. I did not, no, sir.

Q. You considered the basis so absurd and worthless that you didn't even try to see how it would come out, is that it?

A. Well, I wouldn't like to put it quite that strong. I considered it—

Q. Worthless?

A. —not the correct factor.

Q. And that is the rule recently promulgated by the Commission, isn't it, or instructions recently given for the first time, some time since this litigation commenced?

A. I don't know the date of it, but I know that such is the fact that it has been promulgated.

Q. Well, it is recent, at any rate. Wasn't it a part of their directions as to the report for 1907?

A. It was for the year ending June 30, 1908; whether prior to that or not I do not know.

Mr. YAPP: The instructions were given (so as to get uniformity in all the distributions of the operating expenses) to use train mileage.

MR. BUTLER: When were the instructions first given?

Mr. YAPP: Positive instructions were given some time last July, I think it was.

Mr. BUTLER: That is, calling for the report of the fiscal year ending June 30, 1908?

Mr. YAPP: Yes, sir.

The MASTER: When you speak of train mileage you mean the revenue mileage?

WITNESS: Yes, sir.

Q. That would not include light engines or switching engines or switch train mileage?

A. Not as I understand their instructions.

Q. Well, you became familiar, I suppose, with the method prescribed by the State Commission for making these divisions territorially?

Mr. O'BRIEN: It is not that I want to dispute it, Mr. But-

ler, but I hardly think it possible for Mr. Hillman to testify to something he said he didn't know about. It was by consent Mr. Yapp answered.

Mr. BUTLER: I wanted to show if he didn't know about it and if not why he didn't.

WITNESS: I knew that the railroad companies had been directed by the State to make their division of expenses on that basis and that they objected seriously to it.

Q. But you didn't find out what the result would be as to this road or the Great Northern or the Minneapolis & St. Louis, had there been such a division?

A. I did not test it; it would be very easy of comparison from the figures that they furnished if I desired to do so.

Q. Well, it is a short matter, that you can do with a dividing machine. Would you just as soon do that for me?

A. Yes, sir.

Q. On the Northern Pacific and Great Northern and Minneapolis & St. Louis? I don't mean to do it now, but make a note of it and do it at some convenient time. I suppose it would take a little time to figure it now, wouldn't it?

A. Yes, it would.

Q. Now, as to your Table No. 3: that is a statement of engine mileage appertaining to Minnesota, train and car mileage as respects overlapping divisions, and as taken from the books direct?

A. Yes, sir, showing the train mileage, engine mileage and car mileage on the Minnesota divisions and overlaps.

Q. The first subdivision of it, called "A," relates to engines, and the second, called "B," relates to trains and cars?

A. Yes, sir.

Q. And this table is incorporated in your Ex. M for the purpose of providing a basis to make certain divisions of certain expenses?

A. Yes, sir.

Q. So really it is an expression of a factor and nothing else, isn't that true?

A. Yes, sir, it is just the expression of a factor so that, if needed, the percentages could be checked or ticked off.

Q. Table No. 4 is divisions on different bases between freight and passenger, which we will refer to later on but pass it now and come to Table No. 5. Table No. 5 was made up by you or under your direction from the original way-bills and station agents' abstracts, the original sources of evidence?

A. From the station agents' abstracts, not the way-bills.

Q. You had the way-bills for the months in question?

A. I had the way-bills but did not use them for this purpose.

Q. The abstracts didn't show the routing of the stuff or what trains it went on?

A. No, sir.

Q. And you assumed the best route and the ideal conditions of operation as respects train use?

A. For that table, yes, sir.

Q. That would produce the lowest possible aggregate operating expenses, would it not, to do the business?

A. I should judge it would.

Q. Well, there is no doubt about it, is there, if you had the ideal, the best possible routing and the ideal method of handling the business as between through and local service, the aggregate operating expense would necessarily be ideal and therefore the lowest possible, would it not?

A. No, sir, it would not. In your question, yes, the ideal, but you must recollect that, should the local train have a smaller load, it might be necessary to place on a local train some freight which was entitled to a through routing.

Q. I am sure I don't understand how you have answered now. As respects the tonnage moved on through and local

trains and as respects ton-miles produced by through and local train movement, both as respects interstate and state business, you have assumed the ideal, have you not, and given to each the routing and train service that you conceived it to be entitled to?

A. Yes, sir.

Q. Now, would not the following of that assumption, as a practical railroad matter, be a good thing to do, in your opinion, and produce the lowest possible cost, or would it be an unwise thing to do and increase the cost, is what I want to get at.

A. As a general proposition it would be the wise thing to do.

Q. Well, is there any doubt about it? If you give to the stuff the best routing and the best handling, isn't that the cheapest way to do the business?

A. Yes, but you would have to drop the word "best" in that regard in reference to this table. As I explained, it might be that, owing to the small amount of local traffic, you would be compelled to put some of your through business on a local train in order to keep up the tonnage.

Q. Would that increase the cost of the total or lessen it?

A. In that case it would probably lessen the cost of the total slightly.

Q. So then, your idea is that if the flowage of tonnage was irregular and spasmodic, it would not be right to give to the different classes of freight the kind of service that you claim it to be entitled to and upon which basis you made Ex. 5?

A. The exigencies of economic operation might require a variation from the tonnage as shown in Table No. 5, yes, sir.

Q. That is, it is exceedingly difficult to say what effect, then, upon the cost of doing intrastate business or interstate business, or the cost of doing the whole business, the giving

to each item of freight shown on all of the way-bills of the Company the service which you assume and say the business was entitled to would have, isn't it?

A. Yes, sir.

Q. It might decrease the total cost from what it actually was or it might increase it?

A. Yes, sir.

Q. And it might decrease the cost of state business or increase it as compared with what it actually was?

A. Not under the system adopted, sir.

Q. Well, what do you say about the cost of the interstate business?

A. For the reason that should any discrimination be made in that matter it would be absolutely correct that each class of business should stand a proportionate loss, and that is what has been done in the application of this table.

Q. I don't think I understand you, then, if that is true. You say giving to the business the service it was entitled to might increase or diminish the total expenses?

A. Yes, sir.

Q. Then might it not also increase or diminish the expenses of the state business, as compared with what was actual?

A. No, sir, the actual figure stands.

Q. Well, you say no to that. How about the cost of the interstate business?

A. The same thing would apply there, sir.

Q. Then, as I understand you, the giving of this service that the stuff was entitled to might increase or diminish the total cost, but it would not affect the parts, the state or interstate?

A. It would not affect the relative cost.

Q. I didn't ask you about the relative cost, I asked you about the cost.

A. Certainly, if you increased your expenses or decreased your expenses you would increase or decrease the amount applicable to both inter and intra.

Q. The amount of the effect upon cost of this hypothetical service was not computed by you, was it?

A. No, sir.

Q. It could not be computed by you, could it, or anyone else, within any reasonable time or any reasonable amount of research?

A. No, sir, not from itself, because it stands by itself in Table 5. There is no method of computing it.

Q. And that is true, is it not, upon the effect of the cost of each class, state or interstate?

A. Yes, Table 5 would not give you the basis for that.

Q. So then, as a matter of fact, this hypothetical table does not represent the service the stuff had, nor does not pretend to represent a service that would be the most economical, either as to the state or interstate, or the total?

A. It doesn't represent the actual service and might not represent the most economical way of handling the freight.

Q. If it happened to represent the most economical way, that would be merely a matter of chance, would it not?

A. It would be a matter of very delicate adjustment of traffic, sir.

Q. Nobody ever did operate a railroad that way that you know of, and you think it is likely that they never will, don't you?

A. I would not like to criticise the railroad operations as not being strictly in accordance to that known as ideal.

Q. My question related to this exhibit. In all your experience as a railroad man you have never known any railroad that could give the kind of service that you assumed was given there, have you?

A. I didn't assume that any service was given there, sir.

Q. Or that you assumed it was entitled to?

A. Entitled to, yes, sir. There is no such service.

Q. Never was, that you ever heard of?

A. I venture to say that there would be no such service on any road.

Q. Because it is impossible, isn't it, as a practical railroading matter?

A. It is considered so, yes, sir.

Q. And if undertaken it would greatly enhance the cost, wouldn't it,—enormously?

A. I couldn't say that. I have not examined upon that condition.

Q. Well, it might on given conditions?

A. It might under given conditions.

Q. It might, perhaps, under given conditions, double the total cost?

A. I couldn't say that at all; I haven't any idea.

Q. Haven't any idea what effect it might have. Did you in your examination of these two months' way-bills segregate the true state and interstate business in Minnesota? Did you get at it right? This was a field, I think, where an error was made in reporting.

A. The tonnages (as I stated in my former testimony) on Table No. 5, contain the tonnage with the erroneous factor in it; that is, where the way-billing was strictly intrastate as shown by the agents' abstracts and by the records of the overhead tonnage, the freight was classed as intrastate.

The MASTER: That is, the way-billing was intrastate, but, as a matter of fact, it was interstate traffic?

WITNESS: Yes, sir, footing up that difference which occurred between my tables given here and Mr. Johnson's table of the corrected factor, reducing from 14.83 to 12.33 per cent.

Q. Revenue or ton-miles?

A. Revenue.

Q. How much was the percentage in ton-miles?

A. The same, sir.

Q. Exactly the same?

A. As we have no ton-miles for Mr. Johnson's reduction.

Q. Now, let me see if I understand that: The Northern Pacific in its reports included as state business certain interstate business which was local to Minnesota on the line of the Northern Pacific; that was the error, was it not?

A. The original error, yes, sir. *That* error does not occur in this Table 5, though.

Q. Then the including as state business the interstate business which was local in Minnesota to the line of the Northern Pacific is not all of the error?

A. Now your question does include all of the error.

Q. I thought it was the same both times.

A. No, sir, I will explain that if you desire.

Q. I would like to have you.

A. The original factor taken by the Northern Pacific to determine whether a shipment is intrastate or interstate was the haul of the freight on the Northern Pacific lines regardless of whether that freight moved on an interstate way-bill or an interstate rate. When that was determined, to correct that error they went one step further and excerpted that moving on interstate way-bills with an intrastate haul and excerpted all items from the tonnage and earnings which they could determine originated outside of the state and were destined to points in Minnesota on the Northern Pacific, or originated at points in Minnesota on the Northern Pacific and were destined to points outside the state. Where that could be determined, they also excerpted that traffic from the total, though it, as a general rule, moved on intrastate way-bills at intrastate rates, and it is that later difference, that second excerptation (you might call it) which creates the difference between 14.83 per cent which I have set up and the

12.33 per cent which Mr. Johnson has set up. This table represents the 14.83 per cent in tons and ton-miles.

Q. Tons and ton-miles and revenue?

A. And afterwards revenue, yes, sir.

Mr. O'BRIEN: There is no revenue.

WITNESS: There is no revenue on here.

Mr. BUTLER: He says it is in revenue and tons and ton-miles.

WITNESS: And the revenue, as herein stated, applicable to this tonnage, represents the 14.83 per cent.

Q. That is to say, the tonnage on Table 5 is, according to your computation, 14.83 per cent excessive over the true business?

A. No, sir.

Q. How much is it excessive?

A. It is the difference between 14.83 and 12.33.

Q. That is 2½ per cent?

A. That is 2½ points.

Q. That is of all the tonnage in the state, isn't it? That is 2½ per cent difference between you of all the tonnage in the state?

A. Yes.

Q. So the number of the percentage is 2½ and the number of tons and number of ton-miles and the amount of revenue, is all 2½ per cent difference between you, is it not?

A. Yes, sir.

Q. Now, do I understand that tonnage and ton-miles and revenue usually keep in exact harmony on all the different classes of freight?

A. They do not, but they would in this case.

Q. They did in this case, did they?

A. Well, I would take out from that *tons*, because I didn't pay any attention to the tons in this deal, but the ton-miles and the revenue would hold the same relation.

Q. Why?

A. Because all of this traffic or so large a bulk of it that was excerpted between 14.83 and 12.33 moved on Northern Pacific way-billings at Northern Pacific rates.

Q. But there was more, proportionally, wasn't there, of the through?

A. Very small; so small that it can be absolutely ignored.

Q. But if there was any and that was either greater or less than the local rate, then your percentage of ton miles would not harmonize with the percentage of revenue, would it?

A. Not if it was to any extent.

Q. If it wasn't any it wouldn't, would it, arithmetically?

A. No, not if you would take it out to the last figure.

Q. Now, do you say that of that which was included, of the interstate business which was included in their report as state business, there was none that moved on the line of the Northern Pacific road on the basis of its divisions at rates different from their local rates?

A. No, sir, I didn't make that statement.

Q. No, but did you not make the equivalent of that statement when you said that the percentage of difference in tons, ton-miles and in revenue was the same?

A. Yes, sir, I did make that statement that it was.

Q. Then, if it was, it would necessarily follow it was all the same rates?

Mr. O'BRIEN: Let him answer the question.

Q. Had you finished?

A. Practically finished. For the reason that, as I said before, that moved on Northern Pacific way-bills at Northern Pacific rates, if there were any excerptations on the accounts that you name, the probabilities are that the excerptation was made on Northern Pacific way-billing moving at less rates, and therefore there isn't any doubt of the correctness of that statement. I would be willing to go on record, to the best of my

knowledge and belief, that such is the fact, that the ton-miles would depreciate to 2½ per cent, the same as the earnings set up by Mr. Johnson.

Attorney General YOUNG: When you speak about Northern Pacific rating and Northern Pacific rates, don't you mean intrastate rating and intrastate rates?

WITNESS: Yes, sir.

Attorney General YOUNG: You said Northern Pacific.

WITNESS: Well, I was using that "Northern Pacific way-billing" in the sense of being billed within the state on the regular Northern Pacific intrastate rating. I would state, right here, that I have asked that question of the Northern Pacific officials, if they could furnish me, at the same time, with the tonnage which was excerpted, as well as the earnings, and they stated that they had not it available.

Q. Well, you had the way-bills, didn't you, and the abstracts and all the sources of information that there ever was on the subject as to those two months, both as respects tons and the amounts paid, showing every movement of freight and what it was?

A. We have been unable from the source that we had (that is, from the way-bills) to make the excerptation to agree with Mr. Johnson's figures.

Q. Did you find out, for yourself, from the examination that you have made, how much money the Northern Pacific Company earned in its intrastate freight business in April or in October, 1907?

A. No, sir.

Q. Or of the interstate in Minnesota?

A. No, sir, I did not take that off.

Q. Or the total?

A. No, sir.

Q. Or the operating expenses for either month, as a total or divided between state and interstate?

A. No, sir, I did not take that.

Q. Or the number of tons of either class which moved in through or local trains?

A. For which month, sir?

Q. Either or both.

A. I took it for the months of April and October, 1907, the latter information.

Last question read.

A. I took a memorandum of the number of tons moving in through and local trains as shown in Division 1 of Table No. 6, for the months of April and October, 1907.

Q. Weights taken from way-bills?

A. Table No. 6 is not taken from the way-bills but taken from the train-sheets of the Company.

Q. Taken from anything that anybody ever paid out any money on? Or wasn't that merely a recapitulation of the telegraphic reports sent in by conductors on the making up of trains and indicating the amount that the conductor thought he had behind his engine when he started on his trip?

A. I do not know whether it was reported by telegraph or taken directly from the conductors' reports and segregated from them when they were received in the transportation department, but as I understand it, the conductors' reports are the basis of Division A of Table No. 6, tonnage.

Q. Yes, but it is merely the estimate of the conductor at the starting point of his trip, isn't it, of the number of tons he had?

A. Yes.

Q. Dead and revenue?

A. Dead and revenue.

Q. That is, equipment and freight added together, is what I mean.

A. The total ton-miles of the train.

Q. Including empty cars?

A. Yes, sir.

Q. Well, that would not show the ton-miles with any accuracy, would it, on local trains?

A. As I said in my direct testimony, I consider that it does show it with a reasonable degree of accuracy.

Q. Yes, on the ground that they would drop off as fast as they would pick up?

A. On the ground—

Q. In one direction it would drop off at the same rate they picked up in the other?

A. And on the ground, also, that test of these figures with the figures which are furnished by the Northern Pacific Railway Company on their statements bears out the relation of divisions A and B of Table 6 and of the total ton-miles shown on Table 5 and on the year's business of the Northern Pacific as per their annual reports. In other words, Division A of Table 6 was submitted to a test before it was used in this record.

Q. State the test.

A. The Northern Pacific Railway Company report in their annual report for the year ending June 30, 1907, (which was the year we had under consideration here) 1,229,123,000 ton-miles of freight in the state of Minnesota. That is drawn practically from the same sources from which I drew the tonnage on Table No. 5 for the two months. If you will divide that 1,229,123,000 ton-miles into the total ton-mileage shown on Table No. 5, it will give you an approximate percentage of those two months, as against the year, of 20.7. If you will now turn to Table No. 6, in Division B, you will see that the ton-miles on the main line as shown by the A. S. & M. A.-5 statement amount to 1,472,681,000 ton miles. That is drawn from sources which practically represent conductors' reports of tonnage made. That is approved by the Northern Pacific Company in the fact that the relation as shown upon that A.

S. & M. A.-5 statement between the main line and branches represents the state of the facts, although the tonnage is considerably in excess of that reported in their sworn statements.

Q. Which tonnage is in excess?

A. The tonnage reported on the N. S. & M. A. statement.

Q. That includes Company's tonnage, doesn't it?

A. Yes, sir.

Q. The sworn statement includes revenue tonnage, doesn't it?

A. Yes, sir.

Q. You would naturally expect it to be in excess, wouldn't you?

A. Yes, sir.

Q. About 18 or 20 per cent, isn't it?

A. I believe it was in the neighborhood of 20 or 25 per cent; 25 per cent, practically.

Q. Go on.

A. That being an approved factor for the relations between the main line and the branches as regards ton-miles, we then can establish the proportion of this approved tonnage on the conductors' report conditions with the tonnage which I have taken off for the same two months that corresponds to Table No. 5. If we therefore divide the 1,472,681,000 ton-miles into the 305,000,000 net ton-miles which I have reported on Division A of Table No. 6, you will find that the percentage is almost identical with the percentage which there would be between the total ton-miles reported in the state and Table No. 5, which Table 5 agrees practically with the Northern Pacific records for those two months; and, therefore, holding the same percentage of 20.7 per cent, practically, each, I have determined that my statement of ton-miles as taken off from these train-sheets is a reasonably correct and usable factor for the purpose I have taken it.

Q. I have no doubt your answer fully explains the test,

but I haven't been able to follow it, and I want to be sure that you understood what I was at. It is this: Did you ever get at, for the month of April or October the amount of intrastate business that moved on the line of the Northern Pacific road in local trains?

A. Yes.

Q. I mean revenue business that it got paid for moving from the public?

A. No, sir; nor would that have any bearing on the case whatever.

Q. No, I imagine not. Did you get at the tons, ton-miles or revenue, derived from the intrastate business in Minnesota for April or October from the movement of state business on through trains?

A. No, sir, I did not.

Q. You didn't even approximate either of the figures I have asked for in the last two questions, did you?

A. No, sir, nor would I attempt any such basis, for the reason it wouldn't have any bearing on the subject in question.

Q. It doesn't have any bearing on the subject?

A. As you have asked the question it has no bearing on the subject at all.

Q. And is that the reason that you didn't ascertain the revenue derived from the intrastate business, because it had no bearing on the question?

A. You are now asking a different question.

Q. Yes, but you told me that you did not ascertain the revenue on the intrastate business for either month or for the total of the two.

A. The revenue was furnished me by the Northern Pacific Railway Company for those months.

Q. What was the intrastate revenue for April, 1907, furnished by the Northern Pacific Company? and if that was furnished in writing, let us see the writing.

A. I don't know whether I have that paper here or not.

Q. Well, just make a note of it and find it later on. I am not talking now about any figure that includes interstate business, I am talking about intrastate revenue derived from the movement of freight strictly intrastate in Minnesota. Did you so understand my question?

A. I understood your question to mean the figures furnished me by the Northern Pacific showing the intrastate earnings on the basis of the inclusion of the error which Mr. Johnson in his statement has excerpted on that basis, yes. If on the basis that Mr. Johnson furnished, I have no figures of that character in existence.

Q. There are none in existence?

A. Not to my knowledge, no sir.

Q. And, therefore, no such figure used in coming to your conclusion here; am I right?

A. Only as I have applied Mr. Johnson's percentage of 12.33 finally to the final results as well as to the final results of this computation.

Q. Now, let us pass from the subject of revenue to operating expenses during the period and for running the road while this revenue was earned, to-wit, April and October; you had access to that information, didn't you?

A. Yes, sir.

Q. You didn't use it, did you?

A. No, sir.

Q. You used a whole year?

A. I used the year's business.

Q. You had means of obtaining the actual revenue, did you not, from intrastate business and by commodities for those months, and handled half a million way-bills upon which that appeared?

A. Yes, sir.

Q. And ten thousand abstracts from station agents. Now,

don't you think it would have been a good plan to have found out what the earnings were for those two months from the business in question and then figured on what the operation exp es were, at least using the operating expenses for the same two months in your computations to get at the matter of relation? Didn't you do that at all, by way of experiment or otherwise, Mr. Hillman?

A. No, sir, I did not.

Q. Well, wouldn't that show the relation of one to the other? Assuming that all your other steps up to that point were right, when you came to establish the relation of cost of one kind of work with that of another kind of work, couldn't you have used the operating expenses for the same period that the business was done and get the relation just as well as to use a year's operating expenses when there was only one month in the year and the other month was in another and later fiscal year? Wouldn't that have shown the relation just as well?

A. It probably would have shown the relation just as well.

Q. Did you see how that would work?

A. I did not attempt it at all, for the reason that it had been all mutually agreed that these months of April and October should be considered as typical of the business of the road and the relations of different classes of business one to the other and it therefore wasn't necessary for me to do that.

Q. You think that agreement extended to the operating expenses?

A. And also the—

Q. Did that agreement extend to the operating expenses?

A. I don't know, sir. It concerned the relation of the tonnages, and that showed the proper relation of the tonnages one to the other. Now taking the operating expenses for the entire year is a better criterion of the division into freight and passenger and inter and intra than taking the two months,

for the reason that the month of October which we took is a very heavy month. Necessarily, the least possible work would be done during that month in order not to interfere with traffic in any way. The month of April is also quite a heavy month, and would not show, you might say, the repair expenses and reflect them as the whole year's business would. At the same time, you take the item of removal of snow and ice, there would be none of that in either of the months mentioned, and therefore you take the year-'round business, you get a better basis, a better spread of your expenses, and as such it is a better criterion upon which to base your division than the two months in question. And having agreed for all that we needed the two months for, which was to show the relation of the tonnages, it was not necessary, nor did I deem it wise to go into it.

Q. Wouldn't the reasons you have given make it better to take the two years in which these months occurred, the two fiscal years, and treat them as aggregates?

A. Yes, sir, the greater spread that you can get for this the better; and had the time permitted, it would undoubtedly have been very much better to have taken my tonnage and ton-miles and my divisions for the entire year, but it was to obviate that—

Q. Well, it wouldn't have taken long to have added together the operating expenses for the twenty-four months and used your basis of division, the same as you did for the twelve months, then you would have had it very much better, because the spread would be greater, wouldn't it?

A. It might have helped some.

Q. It would be better, in your judgment, wouldn't it?

A. The greater the spread you can get the better.

Q. But if, as a matter of fact, it should turn out that, as respects operating expenses, these months were not typical of the whole year or of the two years, then an error would

creep in, would there not?

A. No, sir.

Q. It wouldn't make any difference?

A. No, sir.

Q. So then, it doesn't make any difference at all, as I understand you, whether or not these are typical months as regards operating costs?

A. No, sir, so long as they are typical concerning the relations of the traffic one to the other.

Q. In preparing Ex. No. 5 (Table 5) you didn't attempt to segregate tonnage as respects commodities?

A. No, sir.

Q. That could have been done readily and earnings shown as to each?

A. Yes, sir, it could have been done.

Q. But you did not attempt any separation here in the division of cost at all as between doing the business which moves under the class rates prescribed by the Commission and here in litigation and those which are covered by the rates enjoined, the commodity rates?

A. No, sir.

Q. It would be a simple matter to ascertain the cost of doing each, would it?

A. No, sir, it would be of considerable detail.

Q. Could it be done easily and with substantial accuracy as the rest of your work?

A. Not easily.

Q. Well, this was not done easily, because it took you four hundred days or the equivalent of that to do it. Now, can that be done?

A. Yes, sir, a computation of that kind could be made.

Q. With accuracy and good results?

A. A reasonable degree of accuracy.

Q. And as to each commodity,—as coal, for instance, or

livestock or grain—each one of the seven new classes defined by the legislature in the act in question?

A. It could be done. The computation in making it would be considerably more intricate than the method that I have adopted here,—I mean the division of expenses such as would be necessitated by this extra division into commodities would necessitate more work than seven times the amount of work which was done here. As you would spread the division you would necessarily have to do more work and probably more analyzing than seven times the amount.

Q. But, without speaking of the quantity of the work or the practicability of the problem, you are of opinion that as accurate a result could be obtained as to the cost of doing intrastate business, in each one of the seven commodities defined by the act of the legislature, as is your conclusion here?

A. As an accurate cost, as between inter and intrastate, of the same commodity, yes, sir.

Q. And the absolute cost of doing each finally and the amount of profit derived from coal or from each of the classes, by proper analysis, and synthesis you would reach that wouldn't you?

A. That could be done.

Q. As respects the ten classes covered by the order of September 6, 1906, I suppose the same statement is true as to each of the classes, is it not?

A. They being generally handled in very much the same method, the results in those classes would be practically resolved into whether they were in carloads or less than carloads for their haul.

Q. Well, then, we will make a separate division. You could take the less than carload group out of the ten and figure the profit on that, and then take the carload group and figure the profit on that, (I mean the intrastate business) by this method or an extension of your method?

A. By the extension of the methods and the access, of course, to the records, as you understand, being granted, it could be figured down to even individual shipments, if desired.

Q. Well, then, if it could be figured to the individual shipments it could be figured as between the ten classes, which bear a percentage relation to each other as follows: first 100, next 83 1-3, next 66 2-3, next 50, next 40,—am I right, Mr. Staples?

Mr. Charles F. STAPLES: Next 45, then 35, then 30, then 25, and then 20.

Q. As respects each one of those ten, having free access to the data, it would be possible to figure out the profit derived from each, and thereby determine, of course, the propriety of the rate of each and the propriety of the relation of the rates of each to the other nine?

A. That could be done, but I would like to resign before the job was put up to me.

Q. I am not asking you to do it while you are on the stand. (Laughter) Now, you are aware, are you not, that under the Western Classification there are certain articles which take a multiple rate of each one of these classes, some taking twice first, two and a half first, four times second, and so on—making, I think, twenty-two different classes by reason of different combinations—taking not the rate specified, but multiples of it; you are familiar with that, are you not?

A. There is such a rating, yes, sir.

Q. And it could be done, the matter of accounting, to determine the profit of each or derived from each rate?

A. It can be done. There is no limit to the extent of cost accounting, either in railroading or manufacturing.

Q. It doesn't impair accuracy at all to extend this thing to the minutia that we are going, does it?

A. No, sir. Of course, it is understood all the time that

you are prepared upon the data necessary for such computation; then it can still be carried out to any extent which is desired.

Q. And practically accurate?

A. Reasonably accurate.

Q. As accurate as your result here in this exhibit which you have prepared?

A. I would not like to say that, because I have gone into the details of that; but I should say, as a general proposition, yes.

Q. Inasmuch as there is no limit to this, you could tell the amount of profit on each particular shipment, taking into account the varying conditions of weather as affecting cost—when it is cold it takes more coal to keep the steam up, and all that—and so you could bring it down to each particular shipment and get a result very accurate, could you not?

A. No, sir, that would be impossible; to follow that would be almost physically impossible. Theoretically not, but physically it would be impossible to bring it down to that statement of—

Q. I don't mean every shipment, of course, but, for instance, if I should send a box of dry-goods to Fargo or to Moorhead from here on a very cold day in winter, and Mr. Yapp should send one on a very hot day in summer, you could determine the profit the Railroad Company derived from each, couldn't you? That cost accounting doesn't fall down at a problem like that, does it?

A. No, of course all those conditions could be taken into account and accounted for, but, as I say, that is extending it to—

Q. Why didn't you extend it to the great divisions here of the case? You are the only one who has ever extended it so far as it has been extended you have told us in this case;

now, why didn't you extend it to the three principal subdivisions, intrastate passengers and commodities covered by the act in question, and the classes covered by the order of September 6, 1906, so that the Master would know whether the Commission was right in its order or whether the Legislature was right in the passenger rate act and in the commodity act?

A. I didn't consider it necessary to do so.

Q. Why?

A. I considered the determination of the intrastate cost in freight and passenger and the profit on intrastate business, freight and passenger, as sufficient for the purposes of this case.

Q. You have not undertaken to see whether or not it would make a profit on the commodities alone or whether it does make a profit on the class merchandise rates alone?

A. No, sir; I have not undertaken that.

Q. And for aught that appears in your testimony or in the exhibits, all the profits that you claim might be made in one or the other?

A. That is right.

Q. Then it is therefore *very* important, is it not, in determining whether or not the Commission's order is valid, to know whether it makes any profit, and, in like manner, in determining whether or not this law that has been enjoined temporarily is a valid law, to find out whether or not the Northern Pacific make any profit on the commodity business?

A. I think Mr. O'Brien will answer that question.

Q. Well, Mr. O'Brien didn't (and I don't ask this with any improper purpose) Mr. O'Brien didn't stop you, did he, from getting the cost?

A. Not at all.

Q. Then why didn't you do it?

A. I have answered that question, stating that I didn't consider it necessary. The reason I spoke of Mr. O'Brien an-

swering that question was that I considered it more in the nature of a legal question than a question for a witness.

Q. Nobody asked you, then, under your commission of employment, and the truth is that you have never been asked to ascertain whether the rates on the commodities, standing alone, which have been enjoined in this case, were reasonable, or whether the Commission's order was reasonable, but your problem was to see whether the two taken together would be reasonable, is that it?

A. My problem was to determine the cost and the operating expenses of the inter and the intra business within the state without regard to the condition of things which you have mentioned of the intra business.

Q. And for aught that appears from your exhibit, all the profit that is shown thereon may be derived from business that is not covered by the Commission's order?

A. That is correct.

Q. Or by the commodity rate act?

A. That is correct.

Q. Indeed, a very large percentage of the profit shown may come from miscellaneous freight and passenger, may it not?

A. Its data is there as to how much came from miscellaneous passenger receipts and how much from the others.

Q. How much profit?

A. How much came from—

Q. The gross?

A. The gross, yes, sir.

Q. But have you undertaken to show how much profit came from the miscellaneous, or any item of the miscellaneous, in either freight or passenger?

A. No, sir.

Q. Either as an aggregate or otherwise?

A. No, sir.

Q. And there is nothing in your exhibit that is a guide to those figures, is there?

A. No, sir, there is nothing there.

Q. Not even a guide to the profit on the miscellaneous freight revenue or the miscellaneous passenger revenue?

A. I have made no statement of that in these tables. The information, however, exists in those tables from which it could be figured.

Q. By a lawyer?

A. I think so,—they can generally do anything.

Q. Do you think an ordinary attorney, not skilled in the art of accounting with which you are familiar, can take the tables and find out what the profit derived on miscellaneous freight revenue is?

A. I think it could be done, sir.

Q. And that appears obviously on the face of the exhibits?

A. I wouldn't say obviously, but it can be done.

Q. Well, then, make a note of it and give it to us when you come in. That is the easiest way,—net profit intrastate miscellaneous freight, and same as to miscellaneous passenger. (Notation made by witness.) Now, exhibit 5 (Table 5) shows the percentage of intrastate ton-miles moved on through trains, does it not?

A. Entitled to movement on through trains, yes sir.

Q. What per cent of the total ton-miles intrastate is moved on through trains or is entitled to be moved on through trains?

A. 45.09 per cent, according to Table 5.

Q. The average haul of each class is not shown anywhere in your exhibits or tables in evidence?

A. No, sir, I have not put it on my tables.

Q. But it is readily computable from the figures on your tables?

A. Yes, sir.

Q. We have undertaken to make the computations, and I will call your attention to the figures that you may verify them. I want to use them as a basis for the next question. It appears that the average haul in Minnesota of intrastate carload freight is 115.7 miles; of interstate 193.4 miles; that the average haul in Minnesota of intrastate less than carload business is 104.7 miles, against 179.8 miles for interstate business, and that the average haul in Minnesota of all intrastate business is 112.7 miles as against 192.5 miles for the interstate.

Mr. O'BRIEN: I suppose that means the interstate haul for Minnesota?

Mr. BUTLER: Yes.

Mr. O'BRIEN: You had better put that in.

Mr. BUTLER: That means in Minnesota, of course, because he doesn't do anything else.

Mr. O'BRIEN: That is what I was going to call your attention to.

Mr. BUTLER: It would have to be that because this is from his data on the basis of what haul the stuff was entitled to h

Q. Now, assuming those figures to be right—and if they are not, please correct them tomorrow—does it not appear that the average intrastate haul is less than the length of any main line operating district in Minnesota? Twin Cities to the Head of the Lakes is 147.5 miles, Duluth to Staples is 155 miles.

A. It is, with the exception that from Staples to Moorhead (which was the division at the time that this was made up,) the distance is 109 miles.

Q. With that single exception, the average haul of all intrastate business, as you make it out, is considerably less than the average division length of the main line?

A. That is correct.

Q. Does not that, to your mind, shed a good deal of doubt

as to the propriety of the percentages that you have just given? Nearly half the ton-miles, you say, were entitled to local train service?

A. Through train service.

Q. Well, that would be the same thing?

A. Yes. No, sir, I see no particular reason to doubt the accuracy of the figures.

Q. Well, what per cent of through train service would make it doubtful, in your opinion, when you consider the division lengths? I mean approximately, as you take into account how these averages are made up.

A. From about 35 to 60 per cent on a rough figure.

Q. Now, in order that any stuff be entitled to through train service at all, as you have defined "entitled" in your explanation of Table No. 5, that has to be hauled a division length?

A. Yes, sir.

Q. And you say that it would be possible to have 60 per cent of it on through trains in view of these division lengths; is that what I understand you to say?

A. It is within the bounds of possibility, yes sir. If it should come below that or above that I would probably have my—

Q. Doubts about it?

A. —percentages refigured. I would say that I have in this case had them refigured and that Table 5 is based upon movement of a train over a division.

Q. The greater the percentage on the through trains, the shorter the haul on the local trains of each class of traffic?

A. Yes.

Q. And you think that, as the Northern Pacific traffic flows, it would be possible to have 60 per cent of the intrastate business on through trains and 40 per cent of it on the—

A. I should consider that as the limit of possibilities. Be-

yond that I would, as I say, have my tonnages refigured and readjusted.

Q. Did you understand my question,—as the Northern Pacific traffic flows or did flow in the two months that you examined—with that point in mind in my question, do you still say that 60 per cent of the ton miles of intrastate business could be done on through trains?

A. If anything more than a mere passing estimate is to be made from it later, I should prefer to figure that before committing myself to the answer.

Q. Well, I will ask you one question more and see if that will not obviate the necessity of your figuring it.

A. All right, sir.

Q. You gave to the traffic covered by the way-bills that you examined for April and October, didn't you, the highest amount of through service that it could have?

A. I gave it the exact amount of through service that it could have, yes, sir.

Q. It couldn't have any more, could it?

A. No, sir.

Q. So then, as the Northern Pacific traffic flowed in those two months, it could not be any higher than the percentages which you fixed, could it?

A. Certainly not.

Q. So you don't need to figure that, do you?

A. No, sir. I understood you to ask me how much I could vary that through movement and yet consider that I was within the limits of the average haul which you gave me here.

Q. Well, if you can figure that to show how much you could distort the flow of traffic—

Attorney General YOUNG: That would be irrelevant, wouldn't it?

WITNESS: I didn't consider it relevant at all, but I am perfectly willing to do any figuring that you ask me to.

Q. I don't either, but if you can do it readily, I would like to have that.

A. I should have to take it by myself and figure it.

Q. If, as a matter of fact, your Table 5 is wrong or impossible, then your whole result is wrong, that is, I mean Table 5 wrong with respect to the through train service and the local train service on the intrastate business, then your whole result goes glimmering, doesn't it?

A. If you change any of the factors that I have used you change the final result, do you mean?

Q. Yes.

A. Yes, sir.

Q. And that is one of the factors, isn't it?

A. That is one of the factors, yes, sir.

Q. And if that one is wrong, then your result is worthless, isn't it?

A. No, sir, I don't say it is worthless, I say it would necessitate a change. If you change any factor from the beginning to the end of this, you change the total result; you do not render the total result worthless, by any means.

Q. Well, it isn't any good if it isn't right, is it? You don't need to answer that unless you want to, but I wouldn't think it was. When you were making your examination for the preparation of Table 5, did you ascertain the number of carloads of intrastate traffic on the Northern Pacific?

A. Yes, sir.

Q. Is it shown there?

A. The number of carloads?

Q. Yes.

A. The amount of the ton-miles is expressed in carloads, yes, sir.

Q. How many carloads were there?

A. I do not know, sir.

Q. All you had to do would be to keep tally as you handled

the way-bills, isn't that all?

A. Yes, sir; but I didn't consider it necessary to do that. It could have been done and I could take them now from my papers—no, I could not.

Q. You have lost them, have you?

A. No, I could not from the papers that I have made. I could not tell you how many cars, because when I abstracted the agents' abstracts there would be three cars to a shipment of say 72,000, and I would mark that shipment "carloads" but I would not keep tab on whether that was shipped in two cars or three cars, I simply marked it as a carload shipment, I would not keep tab of how many cars it came in, whether it was three cars that it took to make the 72,000 pounds that traveled so many miles or whether it was shipped in two cars; I simply marked it as a carload item. I could not get that information without recalling the agents' abstracts and going through them again.

Q. Well, it could have been taken off as you went through them?

A. It could have been, yes, sir.

Q. And if you had that you could tell the amount of stuff interstate in each car on the average or the average loading of each car, could you not, interstate and intrastate?

A. Yes, sir.

Q. And the amount in less than carload that moved in each car?

A. No, sir.

Q. That wouldn't show?

A. No, sir, not from my method of taking this. It wouldn't show unless I took it from the way-bill itself.

Q. Well, you had the way-bill?

A But I did not use the way-bill for that.

Q. I think I understand what you did take, but you could have taken that off so that you could have told the Master

the average amount of intrastate business l. c. l. that moved per car?

A. No, sir, I don't think that that information was obtainable even from the way-bills of the Company. That is, a shipment would start in one car, it might be transferred a half a dozen times, and it would be very difficult to trace that through, way-bill after way-bill and transfer after transfer, and I doubt if that could be successfully accomplished even by an immense amount of clerical labor.

Q. But the carloads could?

A. The carloads could be, yes.

Q. Would that be of any value as bearing upon any of the items of the expense to be divided between intrastate and interstate business later on in your problem, if you knew the average loading of the interstate business and the average loading of the state business, would that be of any value to you?

A. Not particularly.

Q. Would it make any difference in the cost at all if the interstate carload business averaged to the car twice as much or 25 per cent more than the average of the state business?

A. Yes, sir, by the amount of what you might call yard expenses, as switching, it would have made a difference. It would also make a slight difference but not very heavy in the dead-weight pull, but that would be hardly heavy enough to amount to much.

Q. It would not touch the question of the maintenance of equipment, would it, if one car has thirty tons and the other car has forty tons on the average and you are dividing what it costs to keep your cars in repair? It wouldn't make any difference, would it, in the effect? Don't you see that it would, a great deal of difference?

A. It would make no difference that would not have received consideration in the method of treating this expense.

Q. Is not the weight per car on the average an important

consideration in economical operation of railroads? Weight per carload, I mean, of stuff. And is it not recognized by the act in question here and by the order of the Commission which is in force, by the prescribed minimums?

A. Yes, sir, the relation of the loading to the dead weight of the car is certainly an item in expenses.

Q. And is not the car capacity or the car weight, the increasing car capacity and average carload, of late years, one of the principal and great economies that have developed recently in railway operation; or do you think that a road would operate just as economically if it had the old-fashioned cars of—what were they, ten tons or fifteen tons?

A. No, about twenty-eight thousand pounds. 14,000 pounds used to be the old loading. They used to "excess" them in our scales when they went over that.

Q. Don't you think if they used the small carloading for one class of business and the big carloading for the other, that the small carload would be attended by greater expense?

A. There is no doubt that the introduction of the heavier equipment, both in motive power and rolling stock, has tended to reduce operating expenses.

Q. So it is true, isn't it, that if on the average the intrastate business referred to in the way-bills from which you made Table 5 on the average had much heavier loading per car than the other, that would be an important circumstance bearing upon the relative cost of the two, assuming they went, on the average, in the same kind of cars?

A. Certainly, it would make a difference.

Q. You didn't ascertain what the fact was in that regard when you were examining the possibility of these two methods, and have not taken it into account in any way in your exhibit, have you?

A. I have not taken it into account in any way in this table.

Q. Did you ascertain what it was?

A. It has no reference to Table 5 whatever, Table 5 does not bear upon that point at all.

Q. Is there anything in your papers to show the relative carloading?

A. There is nothing in my papers to show the relative carloading.

Q. Did you find out what it was?

A. I made some tests as to what it was, yes, sir.

Q. Have you preserved the data from which the tests were made?

A. I think it is probable I have as I have kept pretty much all the papers that I had.

Q. As this was an important factor, why didn't you tell us that the two classes of business stood on equal footing as respects that factor, and why didn't you show it upon your tables?

A. I couldn't say that just at present, but the probabilities are that it was because we figured that matter out. I am not sure, though, whether we did or not, but my impression is that we did figure that matter out and that the intrastate carloads bore practically the same relation or the same weight tonnage per car as the other. I would not like to answer that absolutely until I examine.

Q. Well, did you take off that information from the way-bills?

A. No, sir, not from the way-bills.

Q. Did you take it off from anything?

A. I am under the impression I did; I would not like to say until I look at my working papers.

Q. Well, if you will bring that in tomorrow—make a memorandum of it.

A. I will look it up and see.

Adjourned until Wednesday morning, June 23rd.